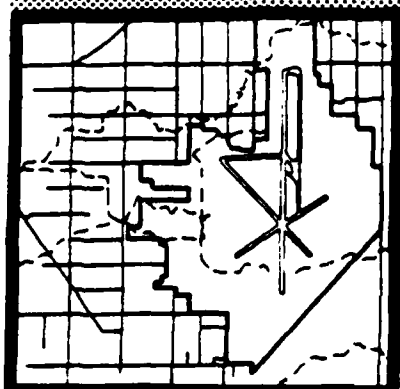


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**INSTALLATION RESTORATION PROGRAM
STAGE 3
McCLELLAN AIR FORCE BASE**



**PREPARED BY:
Radian Corporation
10395 Old Placerville Road
Sacramento, California 95827**

DECEMBER 1988

**JULY-SEPTEMBER 1988
GROUNDWATER SAMPLING &
ANALYSIS DATA SUMMARY**

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FINAL

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**PREPARED FOR:
HEADQUARTERS AFLC/DEV
WRIGHT-PATTERSON AFB, OHIO 45433**

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2. This report has been prepared for the United States Air Force for the purpose of aiding in the implementation of a final remedial action plan under the Air Force RI/FS Program. The limited objectives of this report and the ongoing nature of the RI/FS, along with the evolving knowledge of site conditions and chemical effects on the environment and health, must become known which may make this report premature or inaccurate. Acceptance of this report in performance of the contract under which it was prepared does not mean that the U.S. Air Force or the Department of Defense adopts the conclusions, recommendations, or other views expressed herein, which are those of the contractor only and do not necessarily reflect the official position of either department. The attached Radian report has been reviewed as a matter involved in litigation and has been approved for release to the general public. The report does not contain privileged information.
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Paul G. Brunner

PAUL G. BRUNNER
Deputy Director
Environmental Management

1 Atch
Report

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227-005-03
DCN: 88-227-005-03-03

McCLELLAN AFB, CALIFORNIA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM

JULY THROUGH OCTOBER 1988

DATA SUMMARY

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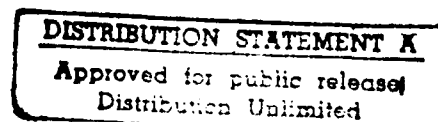
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HEADQUARTERS AFLC/DEV
WRIGHT-PATTERSON AFB, OHIO 45433

DECEMBER 1988

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USAF CONTRACT NO.: F33615-87-D-4023, DELIVERY ORDER NO. 03
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This data summary has been prepared for the United States Air Force for the purpose of aiding in the implementation of a final remedial action plan under the Air Force Installation Restoration Program (IRP). As the data summary relates to actual or possible releases of potentially hazardous substances, its release prior to an Air Force final decision on remedial action is in the public interest. The limited objectives of this data summary and the ongoing nature of the IRP, along with the evolving knowledge of site conditions and chemical effects of the environment and health, must be considered when evaluating this data summary, since subsequent facts may become known which may make this data summary premature or inaccurate. Acceptance of this data summary in performance of the contract under which it was prepared does not mean that the U.S. Air Force or the Department of Defense adopts the conclusions, recommendations, or other views expressed herein, which are those of the contractor only and do not necessarily reflect the official position of either department.

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PREFACE

Radian Corporation is the contractor for the Installation Restoration Program (IRP), Stage 3 Remedial Investigation/Feasibility Study (RI/FS) at McClellan Air Force Base (AFB), California. The work is being performed for the USAF Occupational and Environmental Health Laboratory (USAFOEHL) under USAF Contract No. F33615-87-D-4023.

This final copy of the sampling and analysis summarizes and presents the results of the Sampling and Analysis Program, July through September 1988. The data presented include analytical results for groundwater samples collected from monitoring and extraction wells and groundwater level data measured from wells on and in the vicinity of McClellan AFB. These data are used to evaluate current interim remedial measures and to identify the need for future remedial measures.

Key Radian project personnel were:

Nelson H. Lund, P.E. - Contract Program Manager
Jack D. Gouge' - Delivery Order Manager
Morey Lewis, P.E. - Project Manager
Deena A. Stanley - Project Director

Radian acknowledges the cooperation of the McClellan AFB Office of Environmental Management. In particular, Radian acknowledges the assistance of Mr. Mario Ierardi, Mr. Bud Hoda, and Mr. Gerald Robbins.

The work presented herein was accomplished between 1 July 1988 and 17 October 1988. 1Lt. Jerald E. Styles was the Technical Program Manager.

Approved

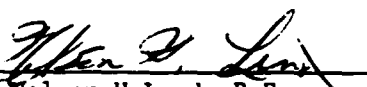

Nelson H. Lund, P.E.
Contract Program Manager

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EXECUTIVE SUMMARY

In support of ongoing Remedial Investigation/Feasibility Study (RI/FS) activities at McClellan AFB, California, Radian personnel measure groundwater levels in 134 wells on a monthly basis and collect and analyze groundwater samples from 126 on- and off-base wells (120 monitoring wells and 6 extraction wells) on a quarterly basis. The purpose of these activities is to determine the direction of groundwater flow, to identify the presence of groundwater contaminants, and to identify and evaluate any trends in groundwater flow or concentrations of contaminants within the vicinity of the Area D extraction system that may be developing with respect to time. This and future data summaries will present the sampling and analytical results collected during the sampling period of interest. Evaluations of trends in groundwater flow and concentrations of contaminants for all areas within the study area will be presented once a year in an Informal Technical Report.

Groundwater levels were measured three times during the sampling period of July, August, and September 1988. Groundwater generally flows to the south-southwest in the northeastern portion of the Sacramento area. In the vicinity of McClellan AFB, deviations from this general direction of flow can be identified by the configuration of the contours on the potentiometric surface maps produced from the monthly water-level data. These local deviations from the regional flow pattern are due to operation of extraction wells in Area D, on-base production wells, and off-base water supply wells.

As a result of continuous pumping by the six Area D extraction wells, a cone of depression continues to be observed on potentiometric surface maps for the shallow and middle monitoring zones in the northwest portion of the base. The effectiveness of the Area D extraction system was evaluated based on hydraulic gradient criteria. Water quality data was also reviewed to examine the effect of the extraction system on water quality. The shallow zone monitoring wells located outside the extraction well-field have shown a decrease in contaminant concentrations followed by stable concentrations over

the past several sampling events. Three of the four middle zone monitoring wells examined show a decreasing trend except during this last sampling period. The two deep zone monitoring wells show decreasing contaminant concentrations trends.

Groundwater flow directions in the east-central portion of the base is not as well defined. The local flow of groundwater in this area of the base is influenced by active base production well BW-10. However, based on the limited water-level data, the influence of this well is not readily apparent. Several additional wells have been recommended to be installed in this and other areas of the base as part of the Hydrogeologic Assessment for McClellan AFB. This document is currently under review by the USAF and regulatory agencies.

A cone of depression beneath the southern portion of the base can be recognized on the monthly potentiometric surface maps. The cone of depression evident in the middle monitoring zone potentiometric surface map apparently results from pumping of base production well BW-18. The cone of depression probably extends into the deep monitoring zone; however, due to the absence of deep zone monitoring wells in this area, the areal and vertical extent of the cone of depression beneath the middle monitoring zone cannot be defined.

Groundwater samples were collected and analyzed from 120 monitoring wells and the six Area D extraction wells during July 1988. In addition, water quality samples were collected and analyzed from the six Area D extraction wells in August and September 1988. The analytical results for these samples were evaluated based on established Quality Assurance/Quality Control (QA/QC) procedures. This evaluation ensures that all analytical results that did not meet the applicable acceptable criteria are not reported without qualification. Data acceptability was determined by evaluating matrix and surrogate spike recoveries, field and laboratory blanks and duplicates, and interlaboratory analytical results.

The objectives for accuracy, precision, and completeness were all met, and overall analytical and sampling performance were deemed acceptable.

Based on review of the analytical data, no significant problems in overall quality control were identified. Although there were several occurrences of laboratory and field contamination, these contaminations did not affect the overall quantitation of analytes of interest in the groundwater. Holding times for 11 samples submitted to the subcontract laboratory were exceeded. However, these samples were to be used for evaluating interlaboratory precision and were not used as the primary results. Therefore, no overall adverse qualification or rejection of the data is necessary. Any data outside stated objectives were qualified. Since more than 99 percent of the data have been validated and are unqualified, the completeness objective of having more than 90 percent usable data has therefore been met.

Following the evaluation of the QC procedures, analytical results were compared to state and federal drinking water standards. Forty wells (6 extraction wells and 34 monitoring wells) contained concentrations of volatile organic compounds (primarily purgeable halocarbons) or metals (total dissolved chromium) at concentrations exceeding California DOHS action levels and/or U.S. EPA Primary Maximum Contaminant Levels (PMCLs). The wells exceeding drinking water standards are located on base in Areas A, B, C, and D and Adjacent On-Base Areas and off base in the Northwest and Southwest Areas.

New Findings

Analytical results for this period of groundwater sampling and analyses activities are similar to results obtained during the previous sampling period (April through June, 1988). However, there are differences in the number of monitoring wells exceeding drinking water standards and in the number of wells in which contaminants were detected.

During this sampling period, samples from forty wells contained concentrations of compounds that exceeded state or federal drinking water standards. This is compared to 38 wells that contained compounds at concentrations exceeding drinking water standards during the previous sampling period. The two additional wells (MW-53 and MW-55) with samples exceeding drinking water standards are both middle zone monitoring wells located in Area D.

Concentrations of contaminants more than doubled in several monitoring wells that have consistently contained contaminants above drinking standards. TCE concentrations in samples collected from MW-415, MW-55, MW-63 and MW-129 during this sampling event were over 100 percent greater than TCE concentrations detected in the wells during the previous quarter. This is a continuation of increasing TCE concentrations in MW-41s over the past year. Concentrations of TCE in MW-55, MW-63 and MW-129, however, have fluctuated. Also, concentrations of tetrachloroethene and total 1,2-dichloroethene in MW-41s have decreased over 200 percent since the last sampling event in April 1988. A more thorough trend analysis of these four wells and the other monitoring wells will be included in the informal interpretive technical report that will include results up to the end of 1988.

Contaminants were not detected in one deep zone monitoring well in Area D that has had a history of contaminants present in groundwater samples. This deep zone monitoring well, MW-59, has contained contaminants at concentrations exceeding drinking water standards, but these levels have gradually decreased over the past year.

1.0 GROUNDWATER SAMPLING AND ANALYSIS PROGRAM

The purposes of the field sampling are to obtain water-level measurements and to obtain representative groundwater samples for chemical analyses. Water-level measurements were taken prior to sampling in July, and during the first two to three working days of August, and September 1988 to provide data for evaluation of the groundwater flow regime beneath McClellan AFB and adjacent areas. Water quality samples were collected from a total of 126 wells during the first three weeks of July 1988. Locations of wells on and off base are shown on Plate 1. These wells included 120 monitoring wells, and the 6 Area D extraction wells. Of the 126 wells sampled, 85 are located on base and 41 are located off base. Ten of the wells in the McClellan AFB groundwater monitoring network were not sampled. In addition, two non-network wells that were scheduled for sampling during this sampling period were not sampled. The unsampled wells and the rationale for not sampling them are indicated below:

- MW-8, MW-20S, MW-22S, MW-34S, and MW-45S--wells were dry;
- MW-9--well silted up;
- MW-19S and MW-31S--not enough water for sampling;
- MW-142--sampling tube broken; and
- MW-1029/1030/1031--wells covered.

A list of wells sampled and analyzed performed during the Third Quarter 1988 is presented in Table 1-1.

The analytical results from the sampling period of July 1988 are summarized in Tables 1-2 and 1-3. Extraction wells are sampled on a monthly basis using EPA Methods 601 and 602. Contaminant levels in 40 wells exceeded California Department of Health Services (DOHS) Action Levels and/or U.S. EPA Primary Maximum Contaminant Levels. Most of these wells (28 monitoring wells and 6 extraction wells) are located on base in Areas A, B, C, and D, although 6 off-base monitoring wells in the Northwest and Southwest Areas also exceeded



TABLE 1-1. WELLS SAMPLED AND ANALYSES PERFORMED,
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, McCLELLAN AFB

Well Number a	Date Sampled	U.S. EPA Method						
		601	602	604	624	625	200.7 b	SW 9010
EW-73	07/01/88				X			
EW-73	08/03/88	X	X					
EW-73	09/02/88	X	X					
EW-83	07/01/88				X			
EW-83	08/03/88	X	X					
EW-83	09/02/88	X	X					
EW-84	07/01/88				X			
EW-84	09/02/88	X	X					
EW-85	07/01/88				X			
EW-85	08/04/88	X	X					
EW-85	09/02/88	X	X					
EW-86	07/01/88				X			
EW-86	08/03/88	X	X					
EW-86	09/02/88	X	X					
EW-87	07/01/88				X			
EW-87	08/04/88	X	X					
EW-87	09/02/88	X	X					
MW-10	07/22/88	X	X	X			X	
MW-11	07/25/88	X	X	X			X	
MW-12	07/26/88	X	X	X			X	
MW-14	07/22/88	X	X	X			X	
MW-15	07/22/88	X	X	X				
MW-17D	07/21/88	X	X		X			
MW-18D	07/18/88	X	X					
MW-20D	07/13/88	X	X					
MW-21D	07/18/88	X	X				X	
MW-21S	07/26/88	X	X		X	X	X	
MW-22D	07/14/88	X	X				X	
MW-23D	07/21/88	X	X					
MW-24D	07/12/88	X	X					
MW-27D	07/20/88	X	X		X	X		
MW-28D	07/21/88	X	X		X	X		
MW-29D	07/12/88	X	X				X	
MW-33S	07/21/88	X	X		X	X		
MW-36S	07/11/88	X	X				X	
MW-41S	07/13/88	X	X		X	X		
MW-44S	07/20/88	X	X				X	
MW-49S	07/25/88	X	X					X
MW-51	07/07/88	X	X		X	X		
MW-52	07/05/88	X	X					
MW-53	07/05/88	X	X		X	X		
MW-54	07/11/88	X	X					

a The letters 'S' and 'D' associated with the monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

b Priority pollutant metals analyses also included U.S. EPA Methods 206.2, 245.1 and 270.2.

EW = Extraction Well

MW = Monitoring Well

TABLE 1-1. (continued)

Well Number a	Date Sampled	U.S. EPA Method					200.7 b	SW 9010
		601	602	604	624	625		
MW-55	07/11/88	X	X		X	X		
MW-57	07/06/88	X	X					
MW-58	07/07/88	X	X		X	X		
MW-59	07/06/88	X	X					X
MW-60	07/20/88	X	X					
MW-61	07/20/88	X	X		X	X		
MW-62	07/26/88	X	X	X				
MW-63	07/15/88	X	X		X	X		
MW-67	07/15/88	X	X					
MW-68	07/20/88	X	X					
MW-69	07/13/88	X	X			X		
MW-70	07/05/88	X	X					
MW-71	07/20/88	X	X	X				
MW-72	07/21/88	X	X		X	X		
MW-74	07/26/88	X	X	X				
MW-75	07/20/88	X	X	X				
MW-76	07/21/88	X	X	X				
MW-88	07/08/88	X	X					
MW-89	07/08/88	X	X				X	
MW-90	07/14/88	X	X					
MW-91	07/20/88	X	X			X		
MW-92	07/21/88	X	X			X		
MW-100	07/19/88	X	X				X	
MW-101	07/19/88	X	X					
MW-102	07/12/88	X	X				X	
MW-103	07/12/88	X	X					
MW-104	07/08/88	X	X					
MW-105	07/19/88	X	X				X	
MW-106	07/13/88	X	X					X
MW-107	07/12/88	X	X					
MW-108	07/12/88	X	X				X	
MW-109	07/12/88	X	X					
MW-110	07/25/88	X	X					
MW-111	07/12/88	X	X		X	X		
MW-112	07/11/88	X	X					
MW-113	07/11/88	X	X					
MW-114	07/12/88	X	X		X	X	X	
MW-115	07/18/88	X	X				X	X
MW-116	07/06/88	X	X		X	X	X	X
MW-120	07/11/88	X	X		X	X		X
MW-121	07/11/88	X	X				X	
MW-122	07/18/88	X	X					

a The letters 'S' and 'D' associated with the monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

b Priority pollutant metals analyses also included U.S. EPA Methods 206.2, 245.1 and 270.2.

EW = Extraction Well

MW = Monitoring Well

TABLE 1-1. (continued)

Well Number a	Date Sampled	U.S. EPA Method						200.7 b	SW 9010
		601	602	604	624	625			
MW-128	07/12/88	X	X	X	X	X			X
MW-129	07/12/88	X	X		X	X			X
MW-130	07/12/88	X	X						
MW-131	07/13/88	X	X						
MW-132	07/18/88	X	X		X	X			
MW-133	07/11/88	X	X						X
MW-134	07/11/88	X	X						X
MW-135	07/11/88	X	X						X
MW-136	07/14/88	X	X		X	X			X
MW-137	07/14/88	X	X						X
MW-138	07/14/88	X	X						X
MW-139	07/08/88	X	X						X
MW-140	07/07/88	X	X						X
MW-141	07/08/88	X	X						X
MW-143	07/21/88	X	X		X	X			
MW-1000	07/15/88	X	X						X
MW-1001	07/22/88	X	X						X
MW-1002	07/19/88	X	X						
MW-1003	07/22/88	X	X						X
MW-1004	07/22/88	X	X		X	X			X
MW-1005	07/19/88	X	X				X		
MW-1009	07/26/88	X	X		X	X	X		
MW-1010	07/19/88	X	X						
MW-1011	07/15/88	X	X						
MW-1012	07/26/88	X	X				X		
MW-1013	07/15/88	X	X				X		
MW-1014	07/19/88	X	X				X		
MW-1015	07/15/88	X	X						
MW-1016	07/19/88	X	X				X		
MW-1017	07/12/88	X	X						
MW-1018	07/23/88	X	X				X		
MW-1019	07/11/88	X	X		X				
MW-1020	07/15/88	X	X						X
MW-1021	07/19/88	X	X						
MW-1022	07/19/88	X	X						
MW-1023	07/08/88	X	X						
MW-1024	07/08/88	X	X						
MW-1025	07/08/88	X	X						
MW-1026	07/13/88	X	X						
MW-1027	07/13/88	X	X						
MW-1028	07/13/88	X	X						
MW-1032	07/14/88	X	X						

a The letters 'S' and 'D' associated with the monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

b Priority pollutant metals analyses also included U.S. EPA Methods 206.2, 245.1 and 270.2.

EW = Extraction Well

MW = Monitoring Well



TABLE 1-1. (continued)

Well Number a	Date Sampled	U.S. EPA Method					200.7 b	SW 9010
		601	602	604	624	625		
MW-1033	07/13/88	X	X					
MW-1034	07/13/88	X	X					X
MW-1035	07/13/88	X	X					
MW-1036	07/22/88	X	X		X			
MW-1037	07/14/88	X	X					
MW-1038	07/14/88	X	X					
MW-1039	07/14/88	X	X					
MW-1040	07/20/88	X	X					
MW-1041	07/15/88	X	X					
MW-1042	07/15/88	X	X					
MW-1043	07/15/88	X	X					

a The letters 'S' and 'D' associated with the monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

b Priority pollutant metals analyses also included U.S. EPA Methods 206.2, 245.1 and 270.2.

EW = Extraction Well

MW = Monitoring Well

TABLE 1-2. SUMMARY OF RESULTS FOR U.S. EPA METHOD 601,
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCCLELLAN AFB

ON-BASE MONITORING AND EXTRACTION WELLS

	Area A and		Area B and		Area C and		Area D and		Other	Totals
	Adjacent	On-Base	Adjacent	On-Base	Adjacent	On-Base	Adjacent	On-Base		
Total Wells Sampled	5		7		34		28		11	85
Wells - Nothing Detected	3		2		15		9		10	39
Wells Containing Analytes Below DOBS Action Levels and/or U.S. EPA PWCLs	1		1		7		3		1	13
Wells Containing Analytes Above DOBS Action Levels and/or U.S. EPA PWCLs	MW-27D		MW-41S, MW-63, MW-120, MW-132		MW-33S, MW-61, MW-75, MW-128, MW-129, MW-131, MW-135, MW-136, MW-137, MW-139, MW-140, MW-141		EW-73, EW-83, EW-84, EW-85, EW-86, EW-87, MW-10, MW-11, MW-12, MW-14, MW-15, MW-53, MW-54, MW-55, MW-72, MW-91			33

TABLE 1-2. (continued)

OFF-BASE MONITORING WELLS

	Northeast Area	Northwest Area	West Area	Southwest Area	Southeast Area	Totals
Total Wells Sampled	2	16	7	10	6	41
Wells - Nothing Detected	2	10	5	6	6	29
Wells Containing Analytes Below DOHS Action Levels and/or U.S. EPA PWCLs	0	2	2	2	0	6
Wells Containing Analytes Above DOHS Action Levels and/or U.S. EPA PWCLs		MM-74, MM-76, MM-1004, MM-1005		MM-1021, MM-1022		6

TABLE 1-3. SUMMARY OF RESULTS FOR OTHER ANALYSES,
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, McCLELLAN AFB

ON- AND OFF-BASE MONITORING AND EXTRACTION WELLS

U.S. EPA Method	Volatile		Phenols	Purgeable		Base/Neutral and		13 Priority	Total and
	Aromatic Compounds	Compounds		Organic Compounds	Acid Extractable	Compounds	Pollutant Metals		
602	602	604	604	624	625	200.7, 206.2, 245.1	245.1 and 270.2	SW 9010	
Total Wells Sampled	126	11	32	26	23				
Wells - Nothing Detected	120	8	12	22	23				
Wells Containing Analytes Below DOBS Action Levels a Or Below U.S. EPA Primary MCLs b	5	3	0	4	0				
Wells Containing Analytes Above DOBS Action Levels a Or Above U.S. EPA Primary MCLs b	MW-10		EW-73, EW-83, EW-84, EW-85, EW-86, EW-87, MW-27D, MW-33S, MW-41S, MW-53, MW-55, MW-61, MW-63, MW-72, MW-120, MW-128, MW-129, MW-132, MW-136, MW-1004 c						

a U.S. EPA Methods 602, 604, 624 and 625

b U.S. EPA Methods 200.7, 206.2, 245.1, 270.2 and SW 9010

c Off-base monitoring well

drinking water standards. During the Second Quarter 1988, 38 wells contained contaminants at concentrations above drinking water standards.

1.1 Results of Field Activities

The procedures used to measure water levels and to collect water samples are described in the draft Quality Assurance Project Plan (Radian, 1988). Field activities include measuring water levels and monitoring three parameters during purging of wells. These parameters, pH, temperature, and conductivity, are used to verify that stagnant water in the well has been removed and fresh formation water will be sampled.

The results of field data collected during the Third Quarter 1988 are discussed in the following subsections.

1.1.1 Groundwater Levels

The results of water-level measurements taken in late June, August, and September 1988 are presented in Table 1-4. These water-level data were used to generate monthly potentiometric surface maps for each of the three monitoring zones defined at McClellan AFB. The three monitoring zones are the shallow monitoring zone (above -55 feet mean sea level [msl]), middle monitoring zone (between -55 to -100 feet msl), and deep monitoring zone (below -100 feet msl). Based on the potentiometric surface maps for all three monitoring zones, there have not been significant changes in flow directions over the three-month period (Plates 2 - 16).

1.1.2 Field Parameters

Results of pH, conductivity, and temperature measurements taken during Third Quarter 1988 are presented in Table 1-5.

TABLE 1-4. MONTHLY GROUNDWATER-LEVEL DATA,
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, McCLELLAN AFB

Monitoring Well Number a	Groundwater-Level Elevation (feet above mean sea level)		
	06/29/88 - 06/30/88	08/01/88 - 08/03/88	09/01/88 - 09/02/88
Shallow Zone Monitoring Wells:			
MW-10	-33.09	-33.43	-34.27
MW-11	-32.38	-33.13	-33.58
MW-12	-32.47	-33.19	-33.62
MW-14	-33.05	-33.60	-34.21
MW-15	-32.64	-33.23	-33.86
MW-160	-30.07	-31.64	-32.37
MW-18S	-29.08	-29.86	-30.43
MW-21S	-30.88	-31.45	-32.00
MW-31S	-30.23	-30.97	-31.37
MW-33S	-32.30	-33.15	-33.86
MW-36S	-30.37	-31.02	-31.45
MW-41S	-36.52	-37.80	-38.43
MW-44S	-30.62	-31.09	-31.67
MW-49S	-31.54	-32.93	-33.24
MW-60	-30.97	-31.58	-32.03
MW-61	-32.92	-33.76	-34.45
MW-62	-31.83	-31.61	-32.01
MW-67	-30.67	-32.35	-33.05
MW-68	-33.22	-34.82	-35.90
MW-88	-31.60	-32.14	-32.51
MW-89	-32.21	-32.84	-33.38
MW-90	-32.51	-33.14	-33.69
MW-91	-32.14	-32.83	-33.34
MW-92	-31.81	-32.51	-33.01
MW-101	-32.47	-34.94	-35.38
MW-102	-25.99	-27.27	-27.82
MW-106	-29.04	-29.49	-30.06
MW-107	-29.90	-30.36	-30.95
MW-110	-29.48	-29.95	-30.51
MW-111	-30.12	-30.73	-31.28
MW-114	-31.70	-32.31	-32.79
MW-116	-33.38	-34.14	-34.72
MW-120	-34.66	-35.77	-36.38
MW-128	-32.49	-33.42	-34.22
MW-131	-33.10	-34.05	-34.86
MW-139	-40.16	-35.32	-36.16
MW-1002	-30.91	-31.74	-32.36
MW-1004	-30.43	-31.44	-32.11
MW-1005	-30.53	-31.90	-32.57
MW-1009	-28.74	-29.60	-30.25

a The letters 'S' and 'D' associated with monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.
NM = Not measured

Table 1-4. (Continued)

Monitoring Well Number ^a	Groundwater Level Elevation (feet above mean sea level)		
	06/29/88 - 06/30/88	08/01/88 - 08/03/88	09/01/88 - 09/02/88
Shallow Zone Monitoring Wells:			
MW-1011	-35.56	-36.56	-37.36
MW-1012	-22.45	-23.17	-23.97
MW-1013	-37.49	-39.03	-40.01
MW-1014	-33.65	-34.82	-35.93
MW-1016	-39.72	-41.88	-42.80
MW-1017	-30.32	-30.98	-31.46
MW-1018	-29.18	-29.79	-30.24
MW-1019	-27.37	-27.86	-28.28
MW-1020	-39.40	-41.38	-42.58
MW-1021	-40.08	-41.92	-42.91
MW-1023	-39.69	-41.00	-41.88
MW-1026	-30.97	-30.98	-31.55
MW-1029	NM ^b	NM ^b	-29.60
MW-1033	-32.28	-32.95	-33.50
MW-1036	-26.90	-27.41	-27.84
MW-1037	-25.74	-27.12	-28.53
MW-1041	-29.87	-31.06	-31.92
Middle Zone Monitoring Wells:			
MW-170	-30.66	-32.30	-33.18
MW-180	-30.55	-31.73	-32.38
MW-190	-31.90	-32.72	-33.25
MW-200	-33.58	-33.52	-34.36
MW-210	-31.72	-32.51	-33.17
MW-230	-44.80	-47.62	-48.14
MW-240	-44.79	-44.00	-45.46
MW-250	-33.95	-34.88	-35.41
MW-270	-35.31	-37.36	-38.41
MW-280	-31.48	-32.87	-33.82
MW-290	-31.79	-33.53	-34.14
MW-52	-32.02	-33.07	-33.48
MW-53	-32.87	NM ^c	NM ^c
MW-54	-33.50	-34.79	-35.38
MW-55	-33.68	-33.90	-34.65
MW-57	-32.67	-33.34	-33.94
MW-69	-38.25	-40.31	-42.06
MW-70	-32.18	-33.06	-33.51
MW-71	-35.12	-37.38	-38.27
MW-72	-33.23	-33.49	-34.42
MW-74	-32.55	-33.16	-34.05
MW-75	-32.29	-33.24	-33.94
MW-76	-32.21	-33.18	-33.78

^a The letters 'S' and 'D' associated with monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

^b Operation of heavy equipment damaged Christy boxes; unable to open

^c Sounding tube blocked

NM = Not measured

Table 1-4. (Continued)

Monitoring Well Number a	Groundwater-Level Elevation (feet above mean sea level)		
	06/29/88 - 06/30/88	08/01/88 - 08/03/88	09/01/88 - 09/02/88
Middle Zone Monitoring Wells:			
MW-100	-35.08	-36.85	-36.60
MW-103	-31.27	-33.09	-33.63
MW-108	-31.07	-31.84	-32.42
MW-113	-30.55	-31.18	-31.74
MW-115	-32.75	-33.49	-34.19
MW-121	-37.58	-39.00	-39.68
MW-129	-32.79	-33.72	-34.74
MW-135	-36.44	-36.75	-37.65
MW-1000	-39.27	-41.24	-42.43
MW-1003	-30.49	-31.49	-32.15
MW-1010	-30.63	-32.42	-32.92
MW-1015	-39.66	-41.72	-42.76
MW-1022	-47.00	-49.40	-50.50
MW-1024	-40.06	-41.40	-42.29
MW-1027	-31.16	-32.01	-32.76
MW-1032	-29.78	-30.44	NM b
MW-1034	-32.61	-33.30	-33.86
MW-1038	-40.15	-41.75	-44.18
MW-1042	-30.11	-31.32	-31.94
Deep Zone Monitoring Wells:			
MW-220	-34.53	-35.78	-37.28
MW-51	-32.17	-33.12	-33.71
MW-58	-32.06	-33.19	-33.71
MW-59	-31.82	-32.70	-33.22
MW-63	-42.07	-45.48	-44.93
MW-66	-47.66	NM c	-51.48
MW-104	-31.22	-32.82	-33.16
MW-105	-32.03	-33.35	-33.93
MW-109	-31.28	-32.06	-32.66
MW-112	-30.82	-31.56	-32.11
MW-122	-40.35	-42.06	-42.73
MW-130	-34.47	-35.68	-37.90
MW-132	-44.26	-47.98	-47.15
MW-133	-38.14	-39.94	-41.23
MW-134	-36.37	-37.90	-39.05
MW-136	-36.09	-37.64	-39.27
MW-137	-35.56	-35.84	NM d
MW-138	-36.37	-37.99	-39.35
MW-140	-35.73	-37.19	NM d
MW-141	-36.68	-38.33	NM d
MW-142	-35.54	-36.94	-38.28

a The letters 'S' and 'D' associated with monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

b Operation of heavy equipment damaged Christy boxes; unable to open

c Access to well blocked

d Sounding tube blocked

NM = Not measured

Table 1-4. (Continued)

Monitoring Well Number ^a	Groundwater-Level Elevation (feet above mean sea level)		
	06/29/88 - 06/30/88	08/01/88 - 08/03/88	09/01/88 - 09/02/88
Deep Zone Monitoring Wells:			
MW-143	-34.17	-35.32	-36.88
MW-1001	-30.73	-31.80	-32.43
MW-1025	-43.17	-45.19	-46.07
MW-1028	-31.57	-32.56	-33.26
MW-1035	-33.15	-33.95	-34.52
MW-1039	-40.57	-42.04	-44.71
MW-1040	-38.40	-40.84	-41.07
MW-1043	-30.35	-31.70	-32.05
Extraction Wells:			
EW-83	-35.63	-35.97	-36.21
EW-84	-45.39	-33.91	-45.28
EW-85	-33.45	-35.57	-35.39
EW-86	-37.21	-37.55	-37.69
EW-87	-34.60	-35.88	-36.40

^a The letters 'S' and 'D' associated with monitoring well numbers are part of the well identification notation and do not refer to monitoring zones at McClellan AFB.

NM = Not measured

TABLE 1-5. RESULTS OF FIELD MEASUREMENTS (pH, CONDUCTIVITY, AND TEMPERATURE),
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988,
MCLELLAN AFB

Area A and				Area B and				Area C and				Area D and				Other			
Adjacent On-Base Areas				Adjacent On-Base Areas				Adjacent On-Base Areas				Adjacent On-Base Areas				On-Base Areas			
Well Number	pH	Cond. (umhos)	Temp. °C	Well Number	pH	Cond. (umhos)	Temp. °C	Well Number	pH	Cond. (umhos)	Temp. °C	Well Number	pH	Cond. (umhos)	Temp. °C	Well Number	pH	Cond. (umhos)	Temp. °C
<u>Shallow Zone Monitoring Wells</u>																			
MM-9	MM	MM	MM	MM-41S	7.3	230.0	22	MM-21S	6.3	310.0	24	MM-10	6.5	1100.0	25	MM-49S	6.5	110.0	22
MM-67	7.0	190.0	23	MM-120	7.4	260.0	22	MM-33S	8.5	1060.0	24	MM-11	6.0	960.0	22	MM-101	8.2	170.0	24
MM-68	7.0	200.0	22					MM-36S	7.6	460.0	22	MM-12	7.4	280.0	24	MM-102	7.4	270.0	20
								MM-44S	7.1	240.0	21	MM-14	6.7	400.0	21	MM-106	7.6	180.0	24
								MM-60	6.7	170.0	22	MM-15	7.1	230.0	23	MM-116	7.2	310.0	21
								MM-61	7.0	190.0	21	MM-88	8.0	160.0	22				
								MM-62	7.6	290.0	21	MM-89	7.8	160.0	22				
								MM-107	7.4	180.0	19	MM-90	6.8	150.0	20				
								MM-110	7.6	200.0	22	MM-91	8.8	220.0	23				
								MM-111	8.0	260.0	20	MM-92	8.8	230.0	21				
								MM-114	7.2	180.0	20								
								MM-128	6.9	590.0	21								
								MM-131	7.4	220.0	22								
								MM-139	7.2	660.0	22								
<u>Middle Zone Monitoring Wells</u>																			
MM-27D	7.0	420.0	22	MM-23D	6.8	180.0	22	MM-20D	7.2	230.0	22	MM-52	7.6	180.0	21	MM-17D	7.3	220.0	21
MM-69	7.2	190.0	22	MM-23D	6.8	180.0	22	MM-21D	8.6	220.0	23	MM-53	7.7	200.0	21	MM-18D	7.4	250.0	23
MM-71	7.4	220.0	22	MM-121	7.5	210.0	21	MM-75	7.6	220.0	22	MM-54	7.8	220.0	19	MM-24D	7.5	220.0	22
								MM-108	7.8	240.0	19	MM-55	7.7	220.0	21	MM-29D	7.4	220.0	22
								MM-113	7.8	220.0	20	MM-57	8.1	200.0	22	MM-100	8.6	180.0	20
								MM-115	7.6	240.0	21	MM-70	7.6	210.0	22	MM-103	7.4	180.0	20
								MM-129	7.3	210.0	21	MM-72	8.7	530.0	23				
								MM-135	8.3	220.0	21								
<u>Deep Zone Monitoring Wells</u>																			
MM-63	7.5	270.0	24	MM-22D	7.6	220.0	24	MM-51	8.7	250.0	21								
MM-122	7.7	240.0	23	MM-109	8.2	220.0	22	MM-58	7.7	180.0	25								
MM-132	7.3	270.0	23	MM-112	7.9	240.0	19	MM-59	7.0	200.0	22								
								MM-130	7.3	300.0	22	MM-104	7.6	260.0	24				
								MM-133	7.4	270.0	21	MM-105	7.8	260.0	21				
								MM-134	7.6	250.0	21								
								MM-136	7.2	760.0	22								
								MM-137	7.0	600.0	22								
								MM-138	7.9	260.0	20								
								MM-140	7.4	280.0	21								
								MM-141	7.2	500.0	22								
								MM-143	8.7	260.0	23								

MM = Not measured

TABLE 1-5. (Continued)

Area A and Adjacent On-Base Areas				Area B and Adjacent On-Base Areas				Area C and Adjacent On-Base Areas				Area D and Adjacent On-Base Areas				Other On-Base Areas			
Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C	
Extraction Wells																			
(Screened in more than one monitoring zone)																			
July:																			
EW-73	6.9	680.0						EW-73	6.9	680.0									
EW-83	6.9	220.0						EW-83	6.9	220.0									
EW-84	7.1	600.0						EW-84	7.1	600.0									
EW-85	7.3	250.0						EW-85	7.3	250.0									
EW-86	7.5	210.0						EW-86	7.5	210.0									
EW-87	7.5	200.0						EW-87	7.5	200.0									
August:																			
EW-73	6.7	600.0						EW-73	6.7	600.0									
EW-83	7.1	220.0						EW-83	7.1	220.0									
EW-85	7.0	240.0						EW-85	7.0	240.0									
EW-86	7.1	220.0						EW-86	7.1	220.0									
EW-87	6.5	210.0						EW-87	6.5	210.0									
September:																			
EW-73	6.9	500.0						EW-73	6.9	500.0									
EW-83	7.5	210.0						EW-83	7.5	210.0									
EW-84	7.0	580.0						EW-84	7.0	580.0									
EW-85	7.5	220.0						EW-85	7.5	220.0									
EW-86	7.3	200.0						EW-86	7.3	200.0									
EW-87	7.4	190.0						EW-87	7.4	190.0									

NM = Not measured

TABLE 1-5. (Continued)

Southeast Area				Southwest Area				West Area				Northwest Area				Northeast Area			
Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C		Well Number	Cond. (umhos)	Temp. °C	
<u>Shallow Zone Monitoring Wells</u>																			
MM-1013	7.3	270.0	22	MM-1011	7.9	240.0	21	MM-1017	7.4	310.0	20	MM-1002	7.2	200.0	24	MM-1012	7.0	670.0	20
MM-1014	7.2	300.0	26	MM-1016	7.1	220.0	21	MM-1018	7.4	290.0	20	MM-1004	9.2	240.0	22				
MM-1037	7.6	360.0	22	MM-1020	7.8	220.0	21	MM-1033	7.4	360.0	20	MM-1005	7.4	280.0	23				
				MM-1021	7.2	320.0	21	MM-1036	9.1	320.0	22	MM-1009	7.8	220.0	21				
				MM-1023	7.6	230.0	22					MM-1019	7.4	490.0	20				
												MM-1026	7.8	340.0	22				
												MM-1041	7.2	140.0	20				
<u>Middle Zone Monitoring Wells</u>																			
MM-280	7.2	200.0	23	MM-1000	7.4	220.0	20	MM-1032	7.5	240.0	22	MM-74	7.4	210.0	21				
MM-1038	7.6	260.0	21	MM-1015	7.6	220.0	21	MM-1034	7.6	250.0	21	MM-76	7.6	220.0	22				
				MM-1022	7.2	200.0	22					MM-1003	8.7	220.0	23				
				MM-1024	7.3	210.0	23					MM-1010	7.1	190.0	21				
												MM-1027	8.0	180.0	19				
												MM-1042	7.1	130.0	21				
<u>Deep Zone Monitoring Wells</u>																			
MM-1039	7.9	260.0	19	MM-1025	7.0	210.0	21	MM-1035	7.7	260.0	21	MM-1001	8.8	230.0	22	MM-1040	8.6	180.0	22
												MM-1028	8.2	220.0	19				
												MM-1043	7.0	150.0	20				

MM = Not measured

pH		Conductivity (umhos)		Temperature °C	
Range	6.0 - 9.2	110 - 1100		19 - 26	
Mode	7.4	220		22	
Mean	7.54	280		21.63	

1.2 Analytical Results

Samples from monitoring and extraction wells collected during the period of July through September 1988 were analyzed using U.S. EPA methods 601, 602, 604, 624, 200.7, 206.2, 245.1, 270.2, and SW 9010. There were a total of 40 wells with contaminants at concentrations above DOHS Action Levels or U.S. primary maximum contaminant levels, as shown in Table 1-6. There are two additional wells with concentrations of contaminants above drinking water levels as compared to the number of wells from the previous sampling round. The analytical results from wells that have contained contaminants above standard are listed in the appendix. Trichloroethene (TCE) is the most commonly detected contaminant in wells located on and off base. The concentrations of TCE detected in the wells sampled during this sampling period are shown for each monitoring zone in Plates 16, 17, and 18.

1.2.1 Summary of QA/QC Results

The objectives for accuracy, precision, and completeness were all met for sampling and analytical procedures. Overall analytical and sampling performance were deemed acceptable for the data collected during this sampling period. There were no significant problems in overall quality control as evidenced by the summary of QA/QC procedures presented in this data summary. Although there were several occurrences of laboratory and field contamination, these contaminations did not affect the detection or quantitation of any of the target compounds in the groundwater samples. Table 1-7 summarizes the overall QC data and results, and Table 1-8 summarizes the qualified data. Table 1-9 summarizes the holding times for all samples. Eleven of sixteen samples submitted to Canonic Environmental Services for analysis did exceed their holding times. However, no loss of data occurred since other samples from those same wells were analyzed at the Radian laboratory. The samples submitted to Canonic were for the purpose of evaluating interlaboratory precision and not for groundwater contamination evaluation.

No large-scale rejection or qualification of the data is necessary with the exception of exceeding hold times for the interlaboratory precision



TABLE 1-6. WELLS CONTAINING ANALYTES AT CONCENTRATIONS EXCEEDING
STATE AND FEDERAL DRINKING WATER STANDARDS,
GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, McCLELLAN AFB

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
EW-73	07/01/88	D	624	Vinyl chloride	FDA	LDA	SAC	950	2	1
				1,1-Dichloroethene	FDA	LDA	SAC	7300	6	7
				1,1-Dichloroethane	FDA	LDA	SAC	690	20	NE
				Total 1,2-Dichloroethene	FDA	LDA	SAC	1100	16	NE
				1,1,1-Trichloroethane	FDA	LDA	SAC	880	200	200
				Trichloroethene	FDA	LDA	SAC	1200	5	5
				Vinyl chloride	FDA	LDB	SAC	980	2	1
				1,1-Dichloroethene	FDA	LDB	SAC	7500	6	7
				1,1-Dichloroethane	FDA	LDB	SAC	710	20	NE
				Total 1,2-Dichloroethene	FDA	LDB	SAC	1100	16	NE
				1,1,1-Trichloroethane	FDA	LDB	SAC	870	200	200
				Trichloroethene	FDA	LDB	SAC	1200	5	5
				Vinyl chloride	FDB		SAC	1000	2	1
				1,1-Dichloroethene	FDB		SAC	7700	6	7
				1,1-Dichloroethane	FDB		SAC	720	20	NE
				Total 1,2-Dichloroethene	FDB		SAC	1100	16	NE
				1,1,1-Trichloroethane	FDB		SAC	930	200	200
				Trichloroethene	FDB		SAC	1200	5	5
				Toluene	FDB		SAC	280	100	NE
EW-73	08/03/88	D	601	Vinyl chloride			SAC	920P	2	1
				1,1-Dichloroethene			SAC	6300P	6	7
				1,1-Dichloroethane			SAC	1100P	20	NE
				Total 1,2-Dichloroethene			SAC	950P	16	NE
				1,1,1-Trichloroethane			SAC	780P	200	200
EW-73	09/02/88	D	601	Trichloroethene			SAC	1100P	5	5
				Vinyl chloride		LDA	SAC	360P	2	1
				1,1-Dichloroethene		LDA	SAC	4000P	6	7
				1,1-Dichloroethane		LDA	SAC	270P	20	NE
				Total 1,2-Dichloroethene		LDA	SAC	500P	16	NE
				1,1,1-Trichloroethane		LDA	SAC	670P	200	200
				Trichloroethene		LDA	SAC	790P	5	5
				Vinyl chloride		LDB	SAC	300P	2	1
				1,1-Dichloroethene		LDB	SAC	3000P	6	7
				1,1-Dichloroethane		LDL	SAC	220P	20	NE
				Total 1,2-Dichloroethene		LDB	SAC	370P	16	NE

All units are ug/l.
EW = Extraction well
NE = Not established
SAC = Radian Analytical Services, Sacramento

FDA = First part of field duplicate sample
FDB = Second part of field duplicate sample
LDA = First part of lab duplicate analysis
LDB = Second part of lab duplicate analysis
P or PC = Identity previously confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
EW-73	09/02/88	D	601	1,1,1-Trichloroethane		LDB	SAC	450P	200	200
				Trichloroethene		LDB	SAC	610P	5	5
EW-83	07/01/88	D	624	1,1-Dichloroethene			SAC	680	6	7
				Trichloroethene			SAC	75	5	5
EW-83	08/03/88	D	601	1,1-Dichloroethene			SAC	690P	6	7
				Trichloroethene			SAC	140P	5	5
				Tetrachloroethene			SAC	58P	4	NE
EW-83	09/02/88	D	601	1,1-Dichloroethene			SAC	570P	6	7
				Trichloroethene			SAC	75P	5	5
				Tetrachloroethene			SAC	5.9P	4	NE
EW-84	07/01/88	D	624	Vinyl chloride			SAC	380	2	1
				1,1-Dichloroethene			SAC	1100	6	7
				1,1-Dichloroethane			SAC	180	20	NE
				Total 1,2-Dichloroethene			SAC	250	16	NE
				1,2-Dichloroethane			SAC	110	1	5
				Trichloroethene			SAC	1200	5	5
EW-84	09/02/88	D	601	Vinyl chloride			SAC	310P	2	1
				1,1-Dichloroethene			SAC	1200P	6	7
				1,1-Dichloroethane			SAC	310P	20	NE
				Total 1,2-Dichloroethene			SAC	290P	16	NE
				1,2-Dichloroethane			SAC	140P	1	5
				Trichloroethene			SAC	1300P	5	5
EW-85	07/01/88	D	624	1,1-Dichloroethene			SAC	2000	6	7
				Total 1,2-Dichloroethene			SAC	27	16	NE
				1,1,1-Trichloroethane			SAC	320	200	200
				Trichloroethene			SAC	1800	5	5
EW-85	08/04/88	D	601	1,1-Dichloroethene			SAC	1200C	6	7
				Total 1,2-Dichloroethene			SAC	23C	16	NE
				1,2-Dichloroethane			SAC	15C	1	5
				Trichloroethene			SAC	920C	5	5
EW-85	09/02/88	D	601	1,1-Dichloroethene			SAC	1100P	6	7
				1,1,1-Trichloroethane			SAC	240P	200	200

All units are ug/l.

EW = Extraction well

NE = Not established

SAC = Radian Analytical Services, Sacramento

LDB = Second part of lab duplicate analysis

C = Presence of analyte confirmed by second column

P or PC = Identity previously confirmed



TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab Concentration	DOHS Action Level	U.S. EPA Primary MCL
EW-85	09/02/88	D	601	Trichloroethene			SAC 1100P	5	5
EW-86	07/01/88	D	624	1,1-Dichloroethene			SAC 130	6	7
				Trichloroethene			SAC 80	5	5
EW-86	08/03/88	D	601	1,1-Dichloroethene			SAC 140P	6	7
				Trichloroethene			SAC 77P	5	5
EW-86	09/02/88	D	601	1,1-Dichloroethene			SAC 120P	6	7
				Trichloroethene			SAC 80P	5	5
EW-87	07/01/88	D	624	1,1-Dichloroethene			SAC 120	6	7
				Trichloroethene			SAC 48	5	5
EW-87	08/04/88	D	601	1,1-Dichloroethene			SAC 140P	6	7
				Trichloroethene			SAC 51P	5	5
EW-87	09/02/88	D	601	1,1-Dichloroethene			SAC 140P	6	7
				Trichloroethene			SAC 62P	5	5
MW-10	07/22/88	D	601	Vinyl chloride			SAC 360C	2	1
				1,1-Dichloroethene			SAC 1400C	6	7
				1,1-Dichloroethane			SAC 180C	20	NE
				Total 1,2-Dichloroethene			SAC 460C	16	NE
				1,2-Dichloroethane			SAC 410C	1	5
				Trichloroethene			SAC 2100C	5	5
				1,2-Dichlorobenzene			SAC 210C	130	NE
			602	1,2-Dichlorobenzene			SAC 170C	130	NE
MW-11	07/25/88	D	601	1,1-Dichloroethene			SAC 20000C	6	7
				1,1,1-Trichloroethane			SAC 2700C	200	200
				Trichloroethene			SAC 2900C	5	5
MW-12	07/26/88	D	601	1,1-Dichloroethene			SAC 22000P	6	7
				1,1,1-Trichloroethane			SAC 4500P	200	200
				Trichloroethene			SAC 6900P	5	5
				Tetrachloroethene			SAC 610P	4	NE
MW-14	07/22/88	D	601	1,1-Dichloroethene			SAC 13000P	6	7

All units are ug/l.

EW = Extraction well

MW = Monitoring well

NE = Not established

SAC = Radian Analytical Services, Sacramento

C = Presence of analyte confirmed by second column
P or PC = Identity previously confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
MW-14	07/22/88	D	601	1,1,1-Trichloroethane			SAC	5500P	200	200
				Trichloroethene			SAC	11000P	5	5
MW-15	07/22/88	D	601	1,1-Dichloroethene			SAC	800C	6	7
				1,2-Dichloroethane			SAC	5.6C	1	5
				Trichloroethene			SAC	590C	5	5
MW-27D	07/20/88	A	624	Total 1,2-Dichloroethene		LDA	SAC	28	16	NE
				Carbon tetrachloride		LDA	SAC	8.7	5	5
				Trichloroethene		LDA	SAC	77	5	5
				Total 1,2-Dichloroethene		LDB	SAC	29	16	NE
				Carbon tetrachloride		LDB	SAC	8.8	5	5
				Trichloroethene		LDB	SAC	76	5	5
			601	Total 1,2-Dichloroethene	FDA	LDA	SAC	26C	16	NE
				1,2-Dichloroethane	FDA	LDA	SAC	1.7C	1	5
				Carbon tetrachloride	FDA	LDA	SAC	8.8C	5	5
				Trichloroethene	FDA	LDA	SAC	73C	5	5
				Total 1,2-Dichloroethene	FDA	LDB	SAC	30C	16	NE
				1,2-Dichloroethane	FDA	LDB	SAC	2.7C	1	5
				Carbon tetrachloride	FDA	LDB	SAC	10C	5	5
				Trichloroethene	FDA	LDB	SAC	63C	5	5
				Total 1,2-Dichloroethene	FDB		SAC	34P	16	NE
				Carbon tetrachloride	FDB		SAC	11P	5	5
				Trichloroethene	FDB		SAC	91P	5	5
				Trichloroethene			CES	56C	5	5
MW-33S	07/21/88	C	624	Total 1,2-Dichloroethene			SAC	660	16	NE
				Trichloroethene			SAC	35000	5	5
			601	Total 1,2-Dichloroethene	FDA	LDA	SAC	530C	16	NE
				1,2-Dichloroethane	FDA	LDA	SAC	490C	1	5
				Trichloroethene	FDA	LDA	SAC	30000C	5	5
				Total 1,2-Dichloroethene	FDA	LDB	SAC	540C	16	NE
				1,2-Dichloroethane	FDA	LDB	SAC	530C	1	5
				Trichloroethene	FDA	LDB	SAC	32000C	5	5
				1,1-Dichloroethane	FDB		SAC	440C	20	NE
				Total 1,2-Dichloroethene	FDB		SAC	500C	16	NE
				Trichloroethene	FDB		SAC	28000C	5	5
				Methylene chloride			CES	860C	40	NE

All units are ug/l.

MW = Monitoring well

NE = Not established

SAC = Radian Analytical Services, Sacramento

CES = Canonic Environmental Services

FDA = First part of field duplicate sample

FDB = Second part of field duplicate sample

LDA = First part of lab duplicate analysis

LDB = Second part of lab duplicate analysis

C = Presence of analyte confirmed by second column

P or PC = Identity previously confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
MW-33S	07/21/88	C	601	Trichloroethene			CES	38000C	5	5
MW-41S	07/13/88	B	624	Trichloroethene			SAC	700	5	5
				Tetrachloroethene			SAC	27	4	NE
			601	Total 1,2-Dichloroethene	FDA	LDA	SAC	23P	16	NE
				Trichloroethene	FDA	LDA	SAC	980P	5	5
				Tetrachloroethene	FDA	LDA	SAC	52P	4	NE
				Total 1,2-Dichloroethene	FDA	LDB	SAC	25P	16	NE
				Trichloroethene	FDA	LDB	SAC	920P	5	5
				Tetrachloroethene	FDA	LDB	SAC	57P	4	NE
				Total 1,2-Dichloroethene	FDB		SAC	23P	16	NE
				Trichloroethene	FDB		SAC	870P	5	5
				Tetrachloroethene	FDB		SAC	42P	4	NE
				Trichloroethene			CES	1100C	5	5
MW-44S	07/20/88	C	200.7	Chromium			CES	54	0	50
MW-53	07/05/88	D	601	1,1-Dichloroethene			SAC	12P	6	7
			624	1,1-Dichloroethene			SAC	13	6	7
MW-54	07/11/88	D	601	Vinyl chloride			SAC	2.9C	2	1
				1,1-Dichloroethene			SAC	100C	6	7
				1,2-Dichloroethane			SAC	1.0C	1	5
				Trichloroethene			SAC	7.3C	5	5
MW-55	07/11/88	D	601	1,1-Dichloroethene	FDA	LDA	SAC	52P	6	7
				Total 1,2-Dichloroethene	FDA	LDA	SAC	25P	16	NE
				1,2-Dichloroethane	FDA	LDA	SAC	1.0P	1	5
				Trichloroethene	FDA	LDA	SAC	19P	5	5
				1,1-Dichloroethene	FDA	LDB	SAC	49P	6	7
				Total 1,2-Dichloroethene	FDA	LDB	SAC	28P	16	NE
				1,2-Dichloroethane	FDA	LDB	SAC	1.0P	1	5
				Trichloroethene	FDA	LDB	SAC	17P	5	5
				1,1-Dichloroethene	FDB		SAC	51P	6	7
				Total 1,2-Dichloroethene	FDB		SAC	27P	16	NE
				Trichloroethene	FDB		SAC	18P	5	5
			624	1,1-Dichloroethene	FDA		SAC	43	6	7
				Total 1,2-Dichloroethene	FDA		SAC	22	16	NE

All units are ug/l.

MW = Monitoring well

NE = Not established

SAC = Radian Analytical Services, Sacramento

CES = Canone Environmental Services

FDA = First part of field duplicate sample

FDB = Second part of field duplicate sample

LDA = First part of lab duplicate analysis

LDB = Second part of lab duplicate analysis

C = Presence of analyte confirmed by second column

P or PC = Identity previous/ confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
MW-55	07/11/88	D	624	Trichloroethene	FDA		SAC	15	5	5
				1,1-Dichloroethene	FDB		SAC	43	6	7
				Total 1,2-Dichloroethene	FDB		SAC	22	16	NE
				Trichloroethene	FDB		SAC	15	5	5
			601	1,1-Dichloroethene			CES	31C	6	7
				Trichloroethene			CES	10C	5	5
MW-61	07/20/88	C	601	Trichloroethene			SAC	7.9P	5	5
			624	Trichloroethene			SAC	6.6	5	5
MW-63	07/15/88	B	601	Total 1,2-Dichloroethene			SAC	46P	16	NE
				Trichloroethene			SAC	91P	5	5
			624	Total 1,2-Dichloroethene			SAC	35	16	NE
				Trichloroethene			SAC	72	5	5
MW-72	07/21/88	D	624	1,1-Dichloroethene			SAC	660	6	7
				1,1-Dichloroethene			SAC	64	20	NE
				Total 1,2-Dichloroethene			SAC	83	16	NE
				1,2-Dichloroethane			SAC	140	1	5
				Trichloroethene			SAC	1100	5	5
			601	1,1-Dichloroethene	FDA	LDA	SAC	760P	6	7
				1,1-Dichloroethane	FDA	LDA	SAC	50P	20	NE
				Total 1,2-Dichloroethene	FDA	LDA	SAC	72P	16	NE
				1,2-Dichloroethane	FDA	LDA	SAC	120P	1	5
				Trichloroethene	FDA	LDA	SAC	830P	5	5
				1,1-Dichloroethene	FDA	LDB	SAC	800P	6	7
				1,1-Dichloroethane	FDA	LDB	SAC	56P	20	NE
				Total 1,2-Dichloroethene	FDA	LDB	SAC	80P	16	NE
				1,2-Dichloroethane	FDA	LDB	SAC	150P	1	5
				Trichloroethene	FDA	LDB	SAC	960P	5	5
				1,1-Dichloroethene	FDB		SAC	790P	6	7
				1,1-Dichloroethane	FDB		SAC	52P	20	NE
				Total 1,2-Dichloroethene	FDB		SAC	73P	16	NE
				1,2-Dichloroethane	FDB		SAC	120P	1	5
				Trichloroethene	FDB		SAC	850P	5	5
				1,1-Dichloroethene			CES	500C	6	7
				1,1-Dichloroethane			CES	65C	20	NE
				1,2-Dichloroethane			CES	120C	1	5

All units are ug/l.

MW = Monitoring well

NE = Not established

SAC = Radian Analytical Services, Sacramento

CES = Canonic Environmental Services

FDA = First part of field duplicate sample

FDB = Second part of field duplicate sample

LDA = First part of lab duplicate analysis

LDB = Second part of lab duplicate analysis

C = Presence of analyte confirmed by second column

P or PC = Identity previously confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab Concentration	DOHS Action Level	U.S. EPA Primary MCL
MW-72	07/21/88	D	601	Trichloroethene			CES 820C	5	5
MW-74	07/26/88	NW	601	1,1-Dichloroethene			SAC 12P	6	7
MW-75	07/20/88	C	601	Trichloroethene			SAC 26C	5	5
MW-76	07/21/88	NW	601	1,1-Dichloroethene			SAC 48C	6	7
MW-91	07/20/88	D	601	Trichloroethene			SAC 6.9C	5	5
MW-120	07/11/88	B	601	Trichloroethene	FDA	LDA	SAC 9.1C	5	5
				Trichloroethene	FDA	LDB	SAC 9.8C	5	5
				Trichloroethene	FDB		SAC 9.1C	5	5
			624	Trichloroethene	FDA		SAC 8.7	5	5
				Trichloroethene	FDB		SAC 8.3	5	5
			601	Trichloroethene			CES 12C	5	5
			624	Trichloroethene			CES 7.6	5	5
MW-128	07/12/88	C	601	Total 1,2-Dichloroethene	FDA	LDA	SAC 300C	16	NE
				Trichloroethene	FDA	LDA	SAC 30000C	5	5
				Total 1,2-Dichloroethene	FDA	LDB	SAC 300C	16	NE
				Trichloroethene	FDA	LDB	SAC 30000C	5	5
				Total 1,2-Dichloroethene	FDB		SAC 340C	16	NE
			624	Trichloroethene	FDB		SAC 34000C	5	5
				Trichloroethene	FDA	LDA	SAC 28000	5	5
				Trichloroethene	FDA	LDB	SAC 30000	5	5
			601	Trichloroethene	FDB		SAC 32000	5	5
				Trichloroethene			CES 45000C	5	5
				1,1-Dichloroethene			CES 2400	6	7
				Total 1,2-Dichloroethene			CES 1500	16	NE
MW-129	07/12/88	C	601	Trichloroethene			SAC 220C	5	5
			624	Trichloroethene			SAC 200	5	5
MW-131	07/13/88	C	601	Total 1,2-Dichloroethene	FDA		SAC 21C	16	NE
				1,2-Dichloroethane	FDA		SAC 1.0C	1	5
				Trichloroethene	FDA		SAC 90C	5	5

All units are ug/l.

MW = Monitoring well

NE = Not established

NW = Northwest

SAC = Radian Analytical Services, Sacramento

CES = Canone Environmental Services

FDA = First part of field duplicate sample

FDB = Second part of field duplicate sample

LDA = First part of lab duplicate analysis

LDB = Second part of lab duplicate analysis

C = Presence of analyte confirmed by second column

P or PC = Identity previously confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
MW-131	07/13/88	C	601	Total 1,2-Dichloroethene	FDB		SAC	21P	16	NE
				1,2-Dichloroethane	FDB		SAC	1.1P	1	5
				Trichloroethene	FDB		SAC	99P	5	5
				Trichloroethene			CES	83C	5	5
MW-132	07/18/88	B	624	Total 1,2-Dichloroethene			SAC	29	16	NE
				Trichloroethene			SAC	76	5	5
			601	Total 1,2-Dichloroethene	FDA	LDA	SAC	39P	16	NE
				Trichloroethene	FDA	LDA	SAC	93P	5	5
				Total 1,2-Dichloroethene	FDA	LDB	SAC	36P	16	NE
				Trichloroethene	FDA	LDB	SAC	83P	5	5
				Total 1,2-Dichloroethene	FDB		SAC	39P	16	NE
				Trichloroethene	FDB		SAC	87P	5	5
				Trichloroethene			CES	85C	5	5
MW-135	07/11/88	C	601	Trichloroethene			SAC	27C	5	5
MW-136	07/14/88	C	601	Trichloroethene			SAC	470C	5	5
			624	Trichloroethene			SAC	430	5	5
MW-137	07/14/88	C	601	Trichloroethene	FDA	LDA	SAC	350C	5	5
				Trichloroethene	FDA	LDB	SAC	310C	5	5
				Trichloroethene	FDB		SAC	320C	5	5
				Trichloroethene			CES	340C	5	5
MW-139	07/08/88	C	601	Total 1,2-Dichloroethene			SAC	24C	16	NE
				Trichloroethene			SAC	83C	5	5
MW-140	07/07/88	C	601	Total 1,2-Dichloroethene			SAC	18P	16	NE
				Trichloroethene			SAC	53P	5	5
MW-141	07/08/88	C	601	Total 1,2-Dichloroethene			SAC	58C	16	NE
				Trichloroethene			SAC	160C	5	5
MW-1004	07/22/88	NW	601	1,1-Dichloroethene			SAC	12C	6	7
			624	1,1-Dichloroethene			SAC	13	6	7
MW-1005	07/19/88	NW	601	1,1-Dichloroethene	FDA	LDA	SAC	32P	6	7

All units are ug/l.

MW = Monitoring well

NE = Not established

NW = Northwest

SAC = Radian Analytical Services, Sacramento

CES = Canonic Environmental Services

FDA = First part of field duplicate sample

FDB = Second part of field duplicate sample

LDA = First part of lab duplicate analysis

LDB = Second part of lab duplicate analysis

 C = Presence of analyte confirmed by second column
 P or PC = Identity previously confirmed

TABLE 1-6. (continued)

Well Number	Date Sampled	Area	U.S. EPA Method	Analyte Detected	Field Duplicate Analysis	Lab Duplicate Analysis	Lab	Concentration	DOHS Action Level	U.S. EPA Primary MCL
MW-1005	07/19/88	NW	601	1,2-Dichloroethane	FDA	LDA	SAC	1.0P	1	5
				Trichloroethene	FDA	LDA	SAC	9.4P	5	5
				1,1-Dichloroethene	FDA	LDB	SAC	40P	6	7
				Trichloroethene	FDA	LDB	SAC	14P	5	5
				1,1-Dichloroethene	FDB		SAC	33C	6	7
				1,2-Dichloroethane	FDB		SAC	1.0C	1	5
				Trichloroethene	FDB		SAC	9.7C	5	5
				1,1-Dichloroethene			CES	32C	6	7
				1,2-Dichloroethane			CES	2.1C	1	5
				Trichloroethene			CES	9.1C	5	5
MW-1021	07/19/88	SW	601	Trichloroethene			SAC	18C	5	5
MW-1022	07/19/88	SW	601	Trichloroethene	FDA	LDA	SAC	11P	5	5
				Trichloroethene	FDA	LDB	SAC	10P	5	5
				Trichloroethene	FDB		SAC	9.7P	5	5
				Trichloroethene			CES	6.1C	5	5

All units are ug/l.

MW = Monitoring well

NW = Northwest

SAC = Radian Analytical Services, Sacramento

CES = Canonic Environmental Services

FDA = First part of field duplicate sample

FDB = Second part of field duplicate sample

LDA = First part of lab duplicate analysis

LDB = Second part of lab duplicate analysis

C = Presence of analyte confirmed by second column

P or PC = Identity previously confirmed

SW = Southwest

TABLE 1-7. SUMMARY OF QUALITY CONTROL RESULTS
 GROUNDWATER SAMPLING AND ANALYSIS PLAN,
 JULY THROUGH SEPTEMBER, 1988
 McCLELLAN AFB

U.S. EPA Method	Number Performed	Compound (Number of Occurrences)	Range of Results (ug/L)
<u>Reagent Blanks</u>			
601	30	ND	N/A
602	30	ND	N/A
604	8	No method analytes	N/A
624	11	Acetone (3)	N/A
625	12	Di-n-butyl phthalate (6)	3.1 - 15
		Bis(2-ethylhexyl)phthalate (7)	3.5 - 220
		Di-n-octyl phthalate (1)	2.9
Metals	9	No method analytes	N/A
SW 9010	11	No method analytes	N/A
<u>Trip Blanks</u>			
601	6	1,1,1-Trichloroethane (1)	0.27
602	6	ND	N/A
624	6	No method analytes	N/A
<u>Ambient Blanks</u>			
601	7	No method analytes	N/A
602	7	ND	N/A
624	7	Acetone (3)	10B
<u>Equipment Blanks</u>			
601	4	1,1-Dichloroethene (1)	0.19
		1,1,1-Trichloroethane (2)	0.23 - 0.68
		Trichloroethene (1)	1.4
602	4	No method analytes	N/A
604	1	No method analytes	N/A
624	4	No method analytes	N/A
Metals	1	No method analytes	N/A
SW 9010	1	No method analytes	N/A

N/A - Not applicable.

ND - Not detected.

B - Compound also detected in reagent blank.

J - Estimate.

a - Found in reagent blank below the detection limit.

TABLE 1-7. (Continued)

U.S. EPA Method	Number Performed	Compound	Range of Results (RPD %)	Acceptance Criteria (RPD %) ^a	Results Not Meeting Criteria
<u>Duplicate Samples</u>					
601	14	8 compounds	0 - 64	50	1
602	14	Toluene	9.2 ^b	50	0
604	1	No method analytes	NC	50	0
624	7	12 compounds	0 - 13	50	0
625	3	5 compounds	NC, 9 - 11	50	0
Metals	3	4 metals	0 - 77	50	1
SW 9010	3	No method analytes	NC	50	0
<u>Duplicate Analyses</u>					
601	14	8 compounds	0 - 45	30	2
602	14	No method analytes	NC	30	0
624	3	11 compounds	0 - 8	30	0
625	3	5 compounds	0 - 27	30	0
Metals	3	4 metals	0 - 35	30	2
SW 9010	3	No method analytes	NC	30	0
<u>Split Sample Analyses</u>					
601	14	10 compounds	0 - 90	40	9
602	14	Toluene	NC	40	0
604	1	No method analytes	NC	40	0
624	3	5 compounds	14 ^b	40	0
625	3	4 compounds	NC	40	0
Metals	3	4 metals	4.9 - 31	40	0
SW 9010	3	No method analytes	NC	40	0

^a The value displayed represents the upper acceptable limit for duplicate samples, duplicate analyses, and split sample analyses.

^b Only one pair with method analysis presented for calculation.

NC - Not calculated.

RPD - Relative Percent Difference

(Continued)

TABLE 1-7. (Continued)

U.S. EPA Method	Number Performed	Compound	Range of Results (% Recovery)	Acceptance Criteria (% Recovery)	Results Not Meeting Criteria ^b
<u>Matrix Spikes</u>					
601	15	3 compounds	45 - 126	28 - 167	0
602	15	3 compounds	75 - 117	39 - 150	0
624	6	28 compounds	60 - 300	5.6 - 273	2
625	4	56 compounds	28 - 120	3.2 - 262	3
Metals	2	11 compounds	13 - 105	75 - 125	4
SW 9010	1	2 compounds	95	90 - 110	0
<u>Surrogate Spikes</u>					
601	201	1-bromo-4-fluorobenzene	69 - 140	40 - 140	0
602	201	1-bromo-4-fluorobenzene	73 - 123	40 - 140	0
604	37	2-fluorophenol	25 - 79	70 - 120	0
624	73	3 compounds	77 - 126	76 - 115	5
625	56	6 compounds	14 - 118	10 - 141	2

^b Refer to individual spike compound recoveries, not overall results.

TABLE 1-8. SUMMARY OF QUALIFIED DATA
 GROUNDWATER SAMPLING AND ANALYSIS PLAN,
 JULY THROUGH SEPTEMBER, 1988
 McCLELLAN AFB

Well Number	Method	Analyte(S)	Type of Qualification	Reason
TB-6	624	1,2-Dichloroethane-d ₄	B	High surrogate recovery
MW-10	Metals	Silver	A ^a	Low matrix spike recovery
		Zinc	A	Low matrix spike recovery
MW-11	Metals	Arsenic	A ^a	Low matrix spike recovery
		Zinc	A	Low matrix spike recovery
MW-12	Metals	Chromium	PL	High RPD
		Zinc	PL	High RPD
MW-21S	624	Toluene	B ^a	High surrogate recovery
		Bromofluorobenzene	B	High surrogate recovery
	625	2-Fluorophenol	B	Low surrogate recovery

^a Although the QC check qualifies the listed analyte, the result does not affect the data since that analyte was not detected (ND).

A - Qualified as inaccurate due to matrix spike recoveries outside the limits.

B - Qualified as biased due to surrogate recoveries outside of limits.

PL - Qualified as estimated due to high laboratory variability as measured by laboratory duplicates.

PF - Qualified as estimated due to high field variability as measured by field duplicates.

PI - Qualified as estimated due to high interlaboratory precision as measured by split samples.

RPD - Relative percent difference.

(Continued)

TABLE 1-8. (Continued)

Well Number	Method	Analyte(S)	Type of Qualification	Reason
MW-21S (Continued)	625	2,4-Dimethylphenol	A ^a	Low matrix spike recovery
		2,4-Dichlorophenol	A ^a	Low matrix spike recovery
		2,4,6-Trichlorophenol	A ^a	Low matrix spike recovery
MW-23D	Metals	Chromium	PI	High RPD
MW-27D	601/602	1,2-Dichloroethene	PL	High RPD
		1,2-Dichloroethene	PF	High RPD
		Methylene Chloride	PF	Detected in only one part of duplicate pair
	624	Bromomethane	A ^a	High matrix spike recovery
	625	Phenol	PF	Detected in only one part of duplicate pair

^a Although the QC check qualifies the listed analyte, the result does not affect the data since that analyte was not detected (ND).

- A - Qualified as inaccurate due to matrix spike recoveries outside the limits.
- B - Qualified as biased due to surrogate recoveries outside of limits.
- PL - Qualified as estimated due to high laboratory variability as measured by laboratory duplicates.
- PF - Qualified as estimated due to high field variability as measured by field duplicates.
- PI - Qualified as estimated due to high interlaboratory precision as measured by split samples.
- RPD - Relative percent difference.

(Continued)

TABLE 1-8. (Continued)

Well Number	Method	Analyte(S)	Type of Qualification	Reason
MW-33S	601/602	1,1-Dichloroethene	PF	Detected in only one part of duplicate pair
		1,2-Dichloroethene	PF	Detected in only one part of duplicate pair
MW-44S	601/602	1,1-Dichloroethane	PL	Detected in only one part of duplicate pair
		1,1-Dichloroethene	PL	Detected in only one part of duplicate pair
MW-55	601/602	1,1-Dichloroethene	PI	High RPD
		1,1,1-Trichloroethane	PI	High RPD
		Trichloroethene	PI	High RPD
		1,2-Dichloroethane	PI	High RPD
		Tetrachloroethene	PI	High RPD
MW-72	601/602	1,1-Dichloroethene	PI	High RPD

^a Although the QC check qualifies the listed analyte, the result does not affect the data since that analyte was not detected (ND).

- A - Qualified as inaccurate due to matrix spike recoveries outside the limits.
- B - Qualified as biased due to surrogate recoveries outside of limits.
- PL - Qualified as estimated due to high laboratory variability as measured by laboratory duplicates.
- PF - Qualified as estimated due to high field variability as measured by field duplicates.
- PI - Qualified as estimated due to high interlaboratory precision as measured by split samples.
- RPD - Relative percent difference.

(Continued)

TABLE 1-8. (Continued)

Well Number	Method	Analyte(S)	Type of Qualification	Reason
EW-73	624	Toluene	PI	High RPD
MW-74	624	Toluene	PI	High RPD
MW-76	624	1,1-Dichloroethene	PI	High RPD
		2-Butanone	PI	High RPD
		Trichloroethene	PI	High RPD
MW-128	624	Bromomethane	A ^a	High matrix spike recovery
		Trichloroethene	PI	High RPD
MW-130	601/602	Trichloroethene	PI	High RPD
MW-1004	624	1,2-Dichloroethene-d ₄	B ^a	High surrogate recovery
MW-1005	601/602	1,2-Dichloroethane	PI	High RPD
		1,1,1-Trichloroethene	PF	Detected in only one part of duplicate pair
		Trichloroethene	PL	High RPD
	Metals	Zinc	PF	High RPD

^a Although the QC check qualifies the listed analyte, the result does not affect the data since that analyte was not detected (ND).

A - Qualified as inaccurate due to matrix spike recoveries outside the limits.

B - Qualified as biased due to surrogate recoveries outside of limits.

PL - Qualified as estimated due to high laboratory variability as measured by laboratory duplicates.

PF - Qualified as estimated due to high field variability as measured by field duplicates.

PI - Qualified as estimated due to high interlaboratory precision as measured by split samples.

RPD - Relative percent difference.

(Continued)

TABLE 1-8. (Continued)

Well Number	Method	Analyte(S)	Type of Qualification	Reason
MW-1012	Metals	Zinc	PF	Detected in only one part of duplicate pair
MW-1022	601/602	Trichloroethene	PI	High RPD
		Toluene	PL	Detected in only one part of duplicate pair
		Chlorobenzene	PF	Detected in only one part of duplicate pair
AB-1037	624	1,2-Dichloroethane-d ₄	B ^a	High surrogate recovery
Reagent Blank of 7/26	625	d ₅ -Phenol	B ^a	High surrogate recovery

^a Although the QC check qualifies the listed analyte, the result does not affect the data since that analyte was not detected (ND).

A - Qualified as inaccurate due to matrix spike recoveries outside the limits.

B - Qualified as biased due to surrogate recoveries outside of limits.

PL - Qualified as estimated due to high laboratory variability as measured by laboratory duplicates.

PF - Qualified as estimated due to high field variability as measured by field duplicates.

PI - Qualified as estimated due to high interlaboratory precision as measured by split samples.

RPD - Relative percent difference.

TABLE 1-9. REPORT OF HOLDING TIMES, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, McLELLAN AFB

U.S. EPA METHOD									
MAXIMUM HOLDING TIME									
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	601		602		604	
				DATE ANALYZED	LAB	DATE ANALYZED	LAB	DATE ANALYZED	LAB
EW-73	07/01/88	FDA	LDA		SAC				
EW-73	07/01/88	FDA	LDB		SAC				
EW-73	07/01/88	FDB			SAC				
EW-73	08/03/88		MS	08/08/88		08/08/88			
EW-73	08/03/88		MSD	08/08/88		08/08/88			
EW-73	08/03/88		LDA	08/08/88		08/08/88			
EW-73	09/02/88		LDB	09/06/88		09/06/88			
EW-73	09/02/88		MS	09/06/88		09/06/88			
EW-83	07/01/88		MS						
EW-83	08/03/88			08/08/88		08/08/88			
EW-83	09/02/88			09/06/88		09/06/88			
EW-84	09/02/88			09/06/88		09/06/88			
EW-85	07/01/88			08/10/88		08/10/88			
EW-85	08/04/88			09/06/88		09/06/88			
EW-85	09/02/88			08/08/88		08/08/88			
EW-86	07/01/88			09/06/88		09/06/88			
EW-86	08/03/88			08/10/88		08/10/88			
EW-86	09/02/88			09/06/88		09/06/88			
EW-87	07/01/88			08/10/88		08/10/88			
EW-87	08/04/88			09/06/88		09/06/88			
EW-87	09/02/88			07/26/88		07/26/88			
EW-10	07/22/88		MS	07/26/88		07/26/88			
EW-11	07/23/88		MS	07/26/88		07/26/88			
EW-11	07/23/88		MS	07/27/88		07/27/88			
EW-12	07/26/88		LDA	07/26/88		07/26/88			
EW-12	07/26/88		LDB	07/26/88		07/26/88			
EW-14	07/22/88		LDA	07/26/88		07/26/88			
EW-14	07/22/88		LDB	07/26/88		07/26/88			
EW-15	07/22/88			07/26/88		07/26/88			
EW-17D	07/21/88			07/25/88		07/25/88			

a = Date missing - holding time unknown
 c = All analyses for Method 200.7 were analyzed within one month of the date sampled
 EW = Monitoring Well
 EW = Extraction Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 MS = Matrix spike
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis
 SAC = Radian Analytical Services, Sacramento
 MSD = Matrix spike duplicate

TABLE 1-9. (continued)

U.S. EPA METHOD		MAXIMUM HOLDING TIME		601		602		604		624		625		200.7		9010	
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	LAB	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED
MM-17D	07/21/88		LDA	SAC						08/02/88							
MM-17D	07/21/88		LDB	SAC						08/02/88							
MM-17D	07/21/88		MS	SAC						08/02/88							
MM-18D	07/18/88			SAC	07/19/88	07/19/88											
MM-20D	07/13/88			SAC	07/14/88	07/14/88											
MM-21D	07/18/88			SAC	07/19/88	07/19/88											
MM-21S	07/26/88			SAC	07/27/88	07/27/88											
MM-21S	07/26/88		MS	SAC						08/03/88							
MM-22D	07/14/88			SAC	07/18/88	07/18/88											
MM-23D	07/21/88			SAC	07/25/88	07/25/88											
MM-24D	07/11/88			SAC	07/14/88	07/14/88											
MM-27D	07/20/88			CES	08/12/88b	08/12/88b											
MM-27D	07/20/88		LDA	SAC													
MM-27D	07/20/88		LDB	SAC													
MM-27D	07/20/88		MS	SAC	07/22/88	07/22/88											
MM-27D	07/20/88	FDA		SAC	07/22/88	07/22/88											
MM-27D	07/20/88	FDB		SAC	07/22/88	07/22/88											
MM-28D	07/21/88			SAC	07/25/88	07/25/88											
MM-29D	07/21/88			SAC	07/25/88	07/25/88											
MM-33S	07/21/88			CES	07/14/88	07/14/88											
MM-33S	07/21/88			CES	08/10/88b	08/10/88b											
MM-33S	07/21/88		LDA	SAC						08/01/88							
MM-33S	07/21/88		LDB	SAC													
MM-33S	07/21/88		MS	SAC													
MM-33S	07/21/88			SAC	07/25/88	07/25/88											
MM-33S	07/21/88	FDA		SAC	07/25/88	07/25/88											
MM-33S	07/21/88	FDB		SAC	07/25/88	07/25/88											
MM-36S	07/11/88			CES	08/02/88b	08/02/88b											
MM-36S	07/11/88		SAC	SAC													
MM-36S	07/11/88		MS	SAC	07/13/88	07/13/88											
MM-36S	07/11/88	FDA		SAC	07/13/88	07/13/88											
MM-36S	07/11/88	FDB		SAC	07/13/88	07/13/88											
MM-41S	07/13/88			SAC	07/14/88	07/14/88											
MM-41S	07/13/88		CES	SAC	08/09/88b	08/09/88b											
MM-41S	07/13/88		MS	SAC						07/19/88							
MM-41S	07/13/88			SAC	07/14/88	07/14/88											

a = Date missing - holding time unknown
b = Holding time was exceeded for this method
c = All analyses for Method 200.7 were analyzed within one month of the date sampled
MM = Monitoring Well
FDB = First field duplicate analysis
FDB = Second field duplicate analysis
MS = Matrix spike
LDA = First laboratory duplicate analysis
LDB = Second laboratory duplicate analysis
CES = Canonic Environmental Services
SAC = Radian Analytical Services, Sacramento

TABLE 1-9. (continued)

U.S. EPA METHOD MAXIMUM HOLDING TIME																		
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	LAB	601		602		604		624		625		200.7		9010	
					14 DAYS	DATE ANALYZED	14 DAYS	DATE ANALYZED	7 DAYS - 40 DAYS	DATE EXTRACTED	14 DAYS	DATE ANALYZED	7 DAYS - 40 DAYS	DATE EXTRACTED	6 MONTHS	DATE ANALYZED	14 DAYS	DATE ANALYZED
MW-41S	07/13/88	FDA	LDA	SAC	07/14/88	07/14/88												
MW-41S	07/13/88	FDA	LDB	SAC	07/14/88	07/14/88												
MW-41S	07/13/88	FDB		SAC	07/14/88	07/14/88												
MW-44S	07/20/88			CES														
MW-44S	07/20/88		LDA	SAC	07/22/88	07/22/88												
MW-44S	07/20/88		LDB	SAC	07/22/88	07/22/88												
MW-44S	07/20/88		MS	SAC	07/22/88	07/22/88												
MW-44S	07/20/88	FDA	LDA	SAC	07/22/88	07/22/88												
MW-44S	07/20/88	FDA	LDB	SAC	07/22/88	07/22/88												
MW-44S	07/20/88	FDB		SAC	07/22/88	07/22/88												
MW-49S	07/25/88			SAC	07/26/88	07/26/88												
MW-49S	07/25/88		LDA	SAC	07/26/88	07/26/88												
MW-49S	07/25/88		LDB	SAC	07/26/88	07/26/88												
MW-51	07/07/88			SAC	07/08/88	07/08/88						07/16/88	07/16/88b	07/18/88b	07/26/88		08/05/88	08/05/88
MW-52	07/05/88			SAC	07/06/88	07/06/88						07/16/88	07/16/88b	07/18/88b	07/21/88			
MW-53	07/05/88			SAC	07/06/88	07/06/88						07/16/88	07/16/88b	07/18/88b	07/21/88b			
MW-54	07/11/88			SAC	07/12/88	07/12/88						07/23/88	07/23/88b	07/21/88b	07/23/88			
MW-55	07/11/88			CES	08/16/88b	08/16/88b						07/23/88	07/23/88b	07/21/88b	07/23/88			
MW-55	07/11/88		MS	SAC	07/12/88	07/12/88						07/16/88	07/16/88b	07/18/88b	07/25/88			
MW-55	07/11/88	FDA		SAC	07/12/88	07/12/88						07/16/88	07/16/88b	07/18/88b	07/25/88			
MW-55	07/11/88	FDA	LDA	SAC	07/12/88	07/12/88						07/16/88	07/16/88b	07/18/88b	07/25/88			
MW-55	07/11/88	FDA	LDB	SAC	07/12/88	07/12/88						07/16/88	07/16/88b	07/18/88b	07/25/88			
MW-55	07/11/88	FDB		SAC	07/12/88	07/12/88						07/16/88	07/16/88b	07/18/88b	07/25/88			
MW-57	07/06/88			SAC	07/07/88	07/07/88						07/16/88	07/16/88b	07/18/88b	07/26/88			
MW-58	07/07/88			SAC	07/08/88	07/08/88						07/16/88	07/16/88b	07/18/88b	07/26/88			
MW-59	07/06/88			SAC	07/07/88	07/07/88						07/16/88	07/16/88b	07/18/88b	07/26/88			
MW-59	07/06/88		LDA	SAC	07/07/88	07/07/88						07/16/88	07/16/88b	07/18/88b	07/26/88			
MW-59	07/06/88		LDB	SAC	07/07/88	07/07/88						07/16/88	07/16/88b	07/18/88b	07/26/88			
MW-60	07/20/88			SAC	07/22/88	07/22/88						07/28/88	07/28/88b	07/21/88b	08/11/88			
MW-61	07/20/88			SAC	07/22/88	07/22/88						07/28/88	07/28/88b	07/21/88b	08/11/88			
MW-62	07/26/88			SAC	07/27/88	07/27/88				07/28/88	08/02/88	07/28/88	07/28/88b	07/18/88b	07/25/88			
MW-63	07/15/88			SAC	07/20/88	07/20/88						07/28/88	07/28/88b	07/18/88b	07/25/88			
MW-67	07/15/88			SAC	07/18/88	07/18/88						07/28/88	07/28/88b	07/18/88b	07/25/88			
MW-68	07/20/88			SAC	07/22/88	07/22/88						07/28/88	07/28/88b	07/18/88b	07/25/88			
MW-69	07/13/88			SAC	07/14/88	07/14/88						07/28/88	07/28/88b	07/18/88b	07/25/88			
MW-70	07/05/88			SAC	07/06/88	07/06/88						07/28/88	07/28/88b	07/18/88b	07/25/88			
MW-71	07/20/88			SAC	07/22/88	07/22/88				07/21/88	08/01/88	07/22/88	07/22/88b	07/18/88b	07/26/88			

a = Date missing - holding time unknown
b = Holding time was exceeded for this method
c = All analyses for Method 200.7 were analyzed within one month of the date sampled
MW = Monitoring Well
FDA = First field duplicate analysis
FDB = Second field duplicate analysis
MS = Matrix spike
LDA = First laboratory duplicate analysis
LDB = Second laboratory duplicate analysis
CES = Canonic Environmental Services
SAC = Radian Analytical Services, Sacramento

TABLE 1-9. (continued)

U.S. EPA METHOD MAXIMUM HOLDING TIME																		
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	LAB	601		602		604		624		625		200.7		9010	
					14 DAYS	DATE ANALYZED	14 DAYS	DATE ANALYZED	7 DAYS - 40 DAYS	DATE EXTRACTED ANALYZED	14 DAYS	DATE ANALYZED	7 DAYS - 40 DAYS	DATE EXTRACTED ANALYZED	6 MONTHS	DATE ANALYZED	14 DAYS	DATE ANALYZED
MM-72	07/21/88			CES	08/16/88b	08/16/88b					08/01/88		07/25/88	-08/11/88				
MM-72	07/21/88			SAC														
MM-72	07/21/88		MS	SAC	07/26/88	07/26/88												
MM-72	07/21/88	FDA	LDA	SAC	07/25/88	07/25/88												
MM-72	07/21/88	FDA	LDB	SAC	07/26/88	07/26/88												
MM-72	07/21/88	FDB		SAC	07/25/88	07/25/88												
MM-74	07/26/88			SAC	07/27/88	07/27/88												
MM-75	07/20/88			SAC	07/22/88	07/22/88			07/28/88 -08/02/88									
MM-76	07/21/88			SAC	07/25/88	07/25/88			07/21/88 -08/01/88									
MM-88	07/08/88			SAC	07/11/88	07/11/88			07/22/88 -08/01/88									
MM-89	07/08/88			SAC	07/11/88	07/11/88												
MM-90	07/14/88			SAC	07/15/88	07/15/88												
MM-91	07/20/88			SAC	07/22/88	07/22/88												
MM-92	07/21/88			SAC	07/25/88	07/25/88												
MM-100	07/19/88			SAC	07/21/88	07/21/88												
MM-101	07/19/88			SAC	07/21/88	07/21/88												
MM-102	07/12/88			SAC	07/14/88	07/14/88												
MM-103	07/12/88			SAC	07/14/88	07/14/88												
MM-104	07/08/88			SAC	07/11/88	07/11/88												
MM-105	07/19/88			SAC	07/21/88	07/21/88												
MM-106	07/13/88			SAC	07/14/88	07/14/88												
MM-107	07/12/88			SAC	07/13/88	07/13/88												
MM-108	07/12/88			SAC	07/13/88	07/13/88												
MM-109	07/12/88			SAC	07/14/88	07/14/88												
MM-110	07/25/88			SAC	07/26/88	07/26/88												
MM-111	07/12/88			SAC	07/14/88	07/14/88												
MM-112	07/11/88			SAC	07/12/88	07/12/88												
MM-113	07/11/88			SAC	07/12/88	07/12/88												
MM-114	07/12/88			SAC	07/13/88	07/13/88												
MM-115	07/18/88			SAC	07/19/88	07/19/88												
MM-116	07/06/88			SAC	07/07/88	07/07/88												
MM-120	07/11/88			CES	08/02/88b	08/02/88b												
MM-120	07/11/88		MS	SAC	07/12/88	07/12/88												
MM-120	07/11/88	FDA		SAC														
MM-120	07/11/88	FDA	LDA	SAC	07/12/88	07/12/88												
MM-120	07/11/88	FDA	LDB	SAC	07/12/88	07/12/88												
MM-120	07/11/88	FDB		SAC	07/12/88	07/12/88												

a = Date missing - holding time unknown
 b = Holding time was exceeded for this method
 c = All analyses for Method 200.7 were analyzed within one month of the date sampled
 MM = Monitoring Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 MS = Matrix spike
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis
 CES = Canone Environmental Services
 SAC = Radian Analytical Services, Sacramento

TABLE 1-9. (continued)

U.S. EPA METHOD									
MAXIMUM HOLDING TIME									
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	LAB	601		602		DATE ANALYZED
					14 DAYS	DATE ANALYZED	14 DAYS	DATE ANALYZED	
MM-121	07/11/88				SAC	07/12/88	07/12/88		
MM-122	07/18/88				SAC	07/19/88	07/19/88		
MM-128	07/12/88				CES	08/02/88b	08/02/88b		
MM-128	07/12/88			MS	SAC	07/13/88	07/13/88		
MM-128	07/12/88	FDA			SAC				
MM-128	07/12/88	FDA	LDA		SAC	07/13/88	07/13/88		
MM-128	07/12/88	FDA	LDB		SAC	07/13/88	07/13/88		
MM-128	07/12/88	FDB			SAC	07/13/88	07/13/88		
MM-129	07/12/88				SAC	07/13/88	07/13/88		
MM-129	07/12/88				CES	08/02/88b	08/02/88b		
MM-130	07/12/88				SAC	07/14/88	07/14/88		
MM-130	07/12/88	FDA		MS	SAC	07/14/88	07/14/88		
MM-130	07/12/88	FDA	LDA		SAC	07/14/88	07/14/88		
MM-130	07/12/88	FDA	LDB		SAC	07/14/88	07/14/88		
MM-130	07/12/88	FDB			SAC	07/14/88	07/14/88		
MM-131	07/13/88				CES	08/12/88b	08/12/88b		
MM-131	07/13/88	FDA			SAC	07/15/88	07/15/88		
MM-131	07/13/88	FDB			SAC	07/15/88	07/15/88		
MM-132	07/18/88				CES	08/01/88	08/01/88		
MM-132	07/18/88				SAC			07/28/88	07/19/88 - 08/10/88
MM-132	07/18/88				SAC	07/19/88	07/19/88		
MM-132	07/18/88	FDA		MS	SAC	07/19/88	07/19/88		
MM-132	07/18/88	FDA	LDA		SAC	07/19/88	07/19/88		
MM-132	07/18/88	FDA	LDB		SAC	07/19/88	07/19/88		
MM-132	07/18/88	FDB			SAC	07/19/88	07/19/88		
MM-133	07/11/88				SAC	07/12/88	07/12/88		
MM-134	07/11/88				SAC	07/12/88	07/12/88		
MM-135	07/11/88				SAC	07/12/88	07/12/88		
MM-135	07/11/88				SAC	07/12/88	07/12/88		
MM-136	07/14/88				SAC	07/15/88	07/15/88		
MM-136	07/14/88			LDA	SAC			07/19/88	07/18/88 - 07/25/88
MM-136	07/14/88			LDB	SAC				
MM-136	07/14/88				SAC	08/02/88b	08/02/88b		
MM-137	07/14/88				CES	07/15/88	07/15/88		
MM-137	07/14/88			MS	SAC	07/15/88	07/15/88		
MM-137	07/14/88	FDA			SAC	07/15/88	07/15/88		
MM-137	07/14/88	FDA	LDA		SAC	07/15/88	07/15/88		
MM-137	07/14/88	FDA	LDB		SAC	07/15/88	07/15/88		
MM-137	07/14/88	FDB			SAC	07/15/88	07/15/88		
MM-138	07/14/88				SAC	07/18/88	07/18/88		
MM-139	07/09/88				SAC	07/11/88	07/11/88		

a = Date missing - holding time unknown
 b = Holding time was exceeded for this method
 c = All analyses for Method 200.7 were analyzed within one month of the date sampled
 MM = Monitoring Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 MS = Matrix spike
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis
 CES = Canonic Environmental Services
 SAC = Radian Analytical Services, Sacramento

TABLE 1-9. (continued)

U.S. EPA METHOD		MAXIMUM HOLDING TIME		601		602		604		624		200.7	
				14 DAYS		14 DAYS		7 DAYS - 40 DAYS		14 DAYS		6 MONTHS	
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE EXTRACTED	DATE ANALYZED	DATE EXTRACTED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED
MM-140	07/07/88			SAC	07/08/88	07/08/88							07/12/88
MM-141	07/08/88			SAC	07/11/88	07/11/88							07/12/88
MM-143	07/21/88			SAC	07/25/88	07/25/88			08/01/88	07/25/88	-08/11/88		
MM-1000	07/15/88			SAC	07/20/88	07/20/88							07/27/88
MM-1001	07/22/88			SAC	07/26/88	07/26/88							08/05/88
MM-1002	07/19/88			SAC	07/21/88	07/21/88							08/05/88
MM-1003	07/22/88			SAC	07/26/88	07/26/88							08/05/88
MM-1004	07/22/88			SAC	07/26/88	07/26/88			08/02/88	07/25/88	-08/10/88		
MM-1005	07/19/88		MS	CES	07/29/88	07/29/88							
MM-1005	07/19/88			SAC	07/21/88	07/21/88							
MM-1005	07/19/88	FDA		SAC	07/21/88	07/21/88							
MM-1005	07/19/88	FDA	LDA	SAC	07/21/88	07/21/88							
MM-1005	07/19/88	FDA	LDB	SAC	07/21/88	07/21/88							
MM-1005	07/19/88	FDB		SAC	07/21/88	07/21/88							
MM-1009	07/26/88			SAC	07/27/88	07/27/88							
MM-1009	07/26/88		MS	SAC	07/21/88	07/21/88			08/03/88	07/28/88	-08/11/88		
MM-1010	07/19/88			SAC	07/21/88	07/21/88							
MM-1011	07/15/88			SAC	07/20/88	07/20/88							
MM-1012	07/26/88			CES	07/27/88	07/27/88							
MM-1012	07/26/88	FDA		SAC	07/27/88	07/27/88							
MM-1012	07/26/88	FDB		SAC	07/27/88	07/27/88							
MM-1013	07/15/88			SAC	07/20/88	07/20/88							
MM-1014	07/19/88			SAC	07/21/88	07/21/88							
MM-1015	07/15/88			SAC	07/20/88	07/20/88							
MM-1016	07/19/88			SAC	07/21/88	07/21/88							
MM-1017	07/12/88			SAC	07/14/88	07/14/88							
MM-1018	07/23/88			SAC	07/26/88	07/26/88							
MM-1019	07/11/88			SAC	07/12/88	07/12/88							
MM-1020	07/15/88			SAC	07/20/88	07/20/88			07/16/88				07/27/88
MM-1021	07/19/88			SAC	07/21/88	07/21/88							
MM-1022	07/19/88		MS	CES	07/29/88	07/29/88							
MM-1022	07/19/88	FDA	LDA	SAC	07/21/88	07/21/88							
MM-1022	07/19/88	FDA	LDB	SAC	07/21/88	07/21/88							
MM-1022	07/19/88	FDB		SAC	07/21/88	07/21/88							
MM-1023	07/08/88			SAC	07/11/88	07/11/88							

a = Date missing - holding time unknown
 b = Holding time was exceeded for this method
 c = All analyses for Method 200.7 were analyzed within one month of the date sampled
 MM = Monitoring Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 MS = Matrix spike
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis
 CES = Canonic Environmental Services
 SAC = Radian Analytical Services, Sacramento

TABLE 1-9. (continued)

U.S. EPA METHOD		MAXIMUM HOLDING TIME		601		602		604		624		625		200.7		9010	
				14 DAYS	DATE ANALYZED	14 DAYS	DATE ANALYZED	7 DAYS - 40 DAYS	DATE EXTRACTED	14 DAYS	DATE ANALYZED	7 DAYS - 40 DAYS	DATE EXTRACTED	6 MONTHS	DATE ANALYZED	14 DAYS	DATE ANALYZED
WELL	DATE SAMPLED	FIELD ANALYSIS	LAB ANALYSIS	LAB	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE EXTRACTED	DATE EXTRACTED	DATE ANALYZED	DATE ANALYZED	DATE EXTRACTED	DATE EXTRACTED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED	DATE ANALYZED
MW-1024	07/08/88				07/11/88	07/11/88											
MW-1025	07/08/88				07/11/88	07/11/88											
MW-1026	07/13/88				07/15/88	07/15/88											
MW-1027	07/13/88				07/15/88	07/15/88											
MW-1028	07/13/88				07/15/88	07/15/88											
MW-1032	07/14/88				07/15/88	07/15/88											
MW-1033	07/13/88				07/14/88	07/14/88											
MW-1034	07/13/88				07/14/88	07/14/88											
MW-1035	07/13/88				07/14/88	07/14/88											
MW-1036	07/22/88				07/26/88	07/26/88											
MW-1037	07/14/88				07/18/88	07/18/88											
MW-1038	07/14/88				07/18/88	07/18/88											
MW-1039	07/14/88				07/18/88	07/18/88											
MW-1040	07/20/88				07/22/88	07/22/88											
MW-1041	07/15/88				07/18/88	07/18/88											
MW-1042	07/15/88				07/18/88	07/18/88											
MW-1043	07/15/88				07/18/88	07/18/88											
QC-1	07/07/88	TB			07/08/88	07/08/88											
QC-2	07/13/88	TB			07/14/88	07/14/88											
QC-3	07/13/88	TB			07/15/88	07/15/88											
QC-4	07/21/88	TB			07/25/88	07/25/88											
QC-5	07/22/88	TB			07/26/88	07/26/88											
QC-6	07/26/88	TB			07/27/88	07/27/88											
QC-14	07/22/88	EB			07/26/88	07/26/88											
QC-17D	07/21/88	EB			07/25/88	07/25/88											
QC-23D	07/21/88	AB			07/25/88	07/25/88											
QC-29D	07/21/88	AB			07/25/88	07/25/88											
QC-49S	07/25/88	EB			07/26/88	07/26/88											
QC-68	07/20/88	EB			07/22/88	07/22/88											
QC-92	07/21/88	AB			07/25/88	07/25/88											
QC-110	07/25/88	AB			07/26/88	07/26/88											
QC-1023	07/08/88	AB			07/11/88	07/11/88											
QC-1036	07/22/88	AB			07/26/88	07/26/88											
QC-1037	07/14/88	AB			07/18/88	07/18/88											

a = Date missing - holding time unknown
 b = Holding time was exceeded for this method
 c = All analyses for Method 200.7 were analyzed within one month of the date sampled
 MW = Monitoring Well
 EB = Equipment blank
 TB = Trip blank
 SAC = Radian Analytical Services, Sacramento
 AB = Ambient blank

samples. With the exceptions noted in Table 1-8 all the data were acceptable. Any out-of-control data were qualified as estimated. More than 99 percent of the data have been validated and are unqualified. Out of a total of approximately 17,000 individual analytical results, only 34 detected results were qualified at less than one percent. Therefore, the completeness objective of having more than 90 percent usable data has been met.

Some analytical results in this report are flagged with "P" or "PC." This qualification means that the compound was confirmed in previous quarters by a second-column confirmation run, therefore, a second-column confirmation was not performed during this sampling period. This practice is consistent with the DOHS guidelines of 1 September 1987. In addition, some data are flagged with "B." This indicates that the compound was found in the reagent blank analyzed the day the sample was analyzed.

Problems and Corrective Actions

As noted above, the only QA/QC problem during this sampling and analysis effort was that holding times for many of the samples analyzed by Canonic Environmental Services were exceeded. The corrective action being taken is a search for a new laboratory that will assure timely analyses and provide higher quality data. The data from samples exceeding holding times is of little use in evaluating the data collected during this sampling period. However, as mentioned above, the loss of these data does little to the overall data quality since they were used only for comparison and not for groundwater quality evaluation.

Another problem arose in collecting a correct number of ambient blanks. Only 7 of the 10 required ambient blanks were collected due to oversights of the sampling personnel. The corrective action will be to re-emphasize to the Sampling Task Leader the need for complete adherence to sampling protocol. Closer supervision of the sampling team by project management will be implemented.

The other qualified data equally divided between field and laboratory problems, suggesting that they come from random errors. Our field teams are required to be familiar with the sampling protocol, and the laboratory is audited routinely. Therefore, no corrective action other than good training and supervision is necessary. The same can be said for the instances of equipment blank contamination. Complete adherence to the sampling, and in this case, decontamination, protocol should alleviate any problems.

1.2.2 Presentation of Analytical Data

This section summarizes the chemical analyses for groundwater samples collected during July through September 1988. In the following tables, the analytical results are presented by area and within each table are subdivided into each analytical method. Tables 1-10 through 1-16 present the results for Area A by method. Tables 1-17 through 1-23 present the results for the Southeast Area. Tables 1-24 through 1-30 and Tables 1-31 through 1-36 present the results for Area B and for the Southwest Area, respectively. Tables 1-37 through 1-43 present the analytical results from wells located in Area C. The analytical results from the West Area are in Tables 1-44 through 1-45. The analytical results from Area D and from the Northwest Area are presented in Tables 1-46 through 1-51 and Tables 1-52 through 1-58, respectively. Tables 1-59 through 1-65 present the results from Other On-Base Areas. The results from the Northeast Area are presented in Tables 1-66 through 1-69.

TABLE 1-10. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR AREA A AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Precursor	DOES Action Level	U.S. EPA Priority MCL	M4-27D	M4-27D	M4-27D	M4-27D	M4-68	M4-69	M4-71
Ground Water Zone			MIDDLE	MIDDLE	MIDDLE	MIDDLE	SHALLOW	MIDDLE	MIDDLE
Date Sampled			07/20/88	07/20/88	07/20/88	07/20/88	07/20/88	07/13/88	07/20/88
Sampled by			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/22/88	07/22/88	08/12/88	07/18/88	07/22/88	07/14/88	07/22/88
Lab			SAC	SAC	CES	SAC	SAC	SAC	SAC
Field Analysis			PTA	PTA	PTB	PTB			
Lab Analysis			LDA	LDB					
Chloroethanes	NE	NE	NO	NO	NO	NO	NO	NO	NO
Bromoethanes	NE	NE	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO
Chloroethenes	NE	NE	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO
Trichloroethenes	3400	NE	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethene	6	7	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	26C	30C	34P	34P	NO	NO	NO
Chloroform	100	100	15C	15C	22P	22P	NO	NO	0.56C
1,2-Dichloroethane	1	5	1.7C	2.7C	0.88P	0.88P	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	8.8C	10C	11P	11P	NO	NO	NO
Bromodichloroethanes	100	100	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO
Trichloroethenes	5	5	75C	63C	91P	91P	NO	NO	0.71C
Dibromochloroethanes	100	100	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO
Benzofuran	100	100	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethanes	NE	NE	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethanes	4	NE	NO	NO	NO	NO	NO	NO	NO
Chlorobenzenes	30	NE	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

MV = Monitoring Well

PTA = First field duplicate analysis

PTB = Second field duplicate analysis

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Cerate Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-11. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS FOR AREA A AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCELLENN AFB

Parameter	DOCS Action Level	U.S. EPA Primary MCL	M4-27D	M4-27D	M4-27D	M4-27D	M4-27D	M4-68	M4-69	M4-71
Ground Water Zone			MIDDLE	MIDDLE	MIDDLE	SHALLOW	SHALLOW	MIDDLE	MIDDLE	MIDDLE
Date Sampled			07/20/88	07/20/88	07/20/88	07/15/88	07/20/88	07/13/88	07/20/88	07/20/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/22/88	07/22/88	08/12/88	07/19/88	07/22/88	07/14/88	07/22/88	07/22/88
Lab			SAC	SAC	CES	SAC	SAC	SAC	SAC	SAC
Field Analysis			PDA	PDA	PDA	PDA	PDA	PDA	PDA	PDA
Lab Analysis			LDA	LDB	LDB	LDB	LDB	LDB	LDB	LDB
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO
Biphenyls	680	NE	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 - Monitoring Well
PDA - First field duplicate analysis
PDB - Second field duplicate analysis
LDA - First laboratory duplicate analysis
LDB - Second laboratory duplicate analysis

RADIAN - Radlun Corporation, Sacramento
CES - Caronde Environmental Services
SAC - Radlun Analytical Services, Sacramento

NO - Nothing detected
LOQ - Limit of quantitation
NE - Not established

TABLE 1-12. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 604 COMPOUNDS FOR AREA A AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCELLAN AFB

Parameter	DCS	U.S. EPA	Action	Priority	WELL NUMBER
	Level	MCL	M4-71		
Ground Water Zone					MIDDLE
Date Sampled					07/20/88
Sampled By					RADIAN
Date Analyzed					08/01/88
Lab					SAC
Field Analysis					
Lab Analysis					
2,4,6-Trichlorophenol	NE	NE	NE	ND	
2-Chlorophenol	NE	NE	NE	ND	
2,4-Dichlorophenol	NE	NE	NE	ND	
2,4-Dimethylphenol	400	NE	NE	ND	
2-Nitrophenol	NE	NE	NE	ND	
4-Nitrophenol	NE	NE	NE	ND	
2,4-Dinitrophenol	NE	NE	NE	ND	
Perachlorophenol	30	NE	NE	ND	
Phenol	NE	NE	NE	ND	
4-Chloro-3-methylphenol	NE	NE	NE	ND	
4,6-Dinitro-2-methylphenol	NE	NE	NE	ND	

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
ND = Nothing detected
NE = Not established

TABLE 1-13. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA CIP MIXED 604 COMPOUNDS
FOR AREA A AND ADJACENT ON-BASE AREAS, CROCKER-HARTMAN SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority MCL	M4-Z70	M4-Z70	WELL NUMBER
Ground Water Zone			MIDDLE	MIDDLE	
Date Sampled			07/20/88	07/20/88	
Sampled By			RADIAN	RADIAN	
Date Analyzed			07/29/88	07/29/88	
Lab			SAC	SAC	
Field Analysis			LDN	LDN	
Lab Analysis			LDN	LDN	
Chloroethane	NE	NE	NO	NO	
Bromoethane	NE	NE	NO	NO	
Vinyl chloride	2	1	NO	NO	
Chloroethane	NE	NE	NO	NO	
Methylene chloride	40	NE	NO	NO	
Trichloroethane	3400	NE	NA	NA	
1,1-Dichloroethane	6	7	NO	NO	
1,1-Dichloroethane	20	NE	NO	NO	
Total 1,2-Dichloroethane	16	NE	28	29	
Chloroform	100	100	12	13	
1,2-Dichloroethane	1	5	NO	NO	
1,1,1-Trichloroethane	200	200	NO	NO	
Carbon tetrachloride	5	5	8.7	8.8	
Bromochloroethane	100	100	NO	NO	
1,2-Dichloropropane	10	NE	NO	NO	
Trans-1,3-dichloropropene	NE	NE	NO	NO	
Trichloroethane	5	5	77	76	
Dibromochloroethane	100	100	NO	NO	
1,1,2-Trichloroethane	100	NE	NO	NO	
cis-1,3-Dichloropropene	87	NE	NO	NO	
2-Chloroethylvinyl ether	NE	NE	NA	NA	
Bromoforn	100	100	NO	NO	
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	
Tetrachloroethane	4	NE	NO	NO	
Chlorobenzene	30	NE	NO	NO	
Benzene	.7	5	NO	NO	
Ethylbenzene	680	NE	NO	NO	
Toluene	100	NE	NO	NO	
Acetone	NE	NE	NO	NO	
Carbon disulfide	NE	NE	NO	NO	
2-Butanone	NE	NE	NO	NO	
Vinyl acetate	NE	NE	NO	NO	

ALL UNITS ARE ug/l
M4 = Monitoring Well
LDN = First Laboratory duplicate analysis
LDN = Second Laboratory duplicate analysis
RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
NE = Not analyzed
NE = Not established

1-48

TABLE 1-14. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA MIXED 625 COMPOUNDS FOR AREA A AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MACLELLAN AFB

Parameter	DDBS Action Level	U.S. EPA Priority MCL	M4-27D	M4-27D	M4-69	WELL NUMBER
Ground Water Zone			MIDDLE	MIDDLE	MIDDLE	
Date Sampled			07/20/88	07/20/88	07/13/88	
Sampled By			RADIAN	RADIAN	RADIAN	
Date Analyzed			08/11/88	08/11/88	07/26/88	
Lab			SAC	SAC	SAC	
Field Analysis			LDA	LDB		
Lab Analysis						
1,3-Dichlorobenzene	130	NE	ND	ND	ND	
1,2-Dichlorobenzene	130	NE	ND	ND	ND	
1,4-Dichlorobenzene	NE	750	ND	ND	ND	
Aroclor 1248	NE	NE	ND	ND	ND	
1,2,4-Trichlorobenzene	NE	NE	ND	ND	ND	
Benzochlorobenzene	NE	NE	ND	ND	ND	
Bis(2-chloroethyl) ether	NE	NE	ND	ND	ND	
2-Chloronaphthalene	NE	NE	ND	ND	ND	
3,3'-Dichlorobenzidine	NE	NE	ND	ND	ND	
2,4-Dinitrochlorobenzene	NE	NE	ND	ND	ND	
2,6-Dinitrochlorobenzene	NE	NE	ND	ND	ND	
Fluoranthene	NE	NE	ND	ND	ND	
4-Chlorophenyl phenyl ether	NE	NE	ND	ND	ND	
N-nitrosodimethylamine	NE	NE	ND	ND	ND	
N-nitrosodi-n-propylamine	NE	NE	ND	ND	ND	
Bis(2-ethylhexyl) phthalate	NE	NE	ND	ND	ND	
Bis(2-ethylhexyl) phthalate	NE	NE	ND	ND	ND	
Di-n-butyl phthalate	NE	NE	ND	ND	ND	
Di-n-octyl phthalate	NE	NE	ND	ND	ND	
Dimethyl phthalate	NE	NE	ND	ND	ND	
Benzo(a)anthracene	NE	NE	ND	ND	ND	
Benzo(a)pyrene	NE	NE	ND	ND	ND	
Benzo(b)fluoranthene	NE	NE	ND	ND	ND	
Chrysene	NE	NE	ND	ND	ND	
Acenaphthylene	NE	NE	ND	ND	ND	
Anthracene	(LOQ)0.7	NE	ND	ND	ND	
Bis(2-chloroethyl)urethane	NE	NE	ND	ND	ND	
Benzochlorobenzene	NE	NE	ND	ND	ND	
Benzochlorocyclopentadiene	NE	NE	ND	ND	ND	

ND = Nothing detected
NA = Not analyzed
LOQ = Limit of quantitation
NE = Not established

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ALL UNITS ARE ug/l
M4 = Monitoring Well
LDA = First Laboratory duplicate analysis
LDB = Second Laboratory duplicate analysis

TABLE 1-14. (continued)

Parameter	U.S. EPA		WELL NUMBER			
	Action Level	Primary MCL	M4-27D	M4-27D	M4-69	
Ground Water Zone						
Date Sampled			07/20/88	07/20/88	07/13/88	
Sampled by			RADIAN	RADIAN	RADIAN	
Date Analyzed			08/11/88	08/11/88	07/26/88	
Lab			SAC	SAC	SAC	
Field Analysis			LDA	LDB		
Lab Analysis						
Isophenone	NE	NE	NO	NO	NO	
Naphthalene	NE	NE	NO	NO	NO	
Nitrobenzene	NE	NE	NO	NO	NO	
Phenanthrene	NE	NE	NO	NO	NO	
Dibenz(a,h)anthracene	NE	NE	NO	NO	NO	
Indeno(1,2,3-cd)pyrene	NE	NE	NO	NO	NO	
Pyrene	NE	NE	NO	NO	NO	
2,4,6-Trichlorophenol	NE	NE	NO	NO	NO	
2-Chlorophenol	NE	NE	NO	NO	NO	
2,4-Dichlorophenol	NE	NE	NO	NO	NO	
2,4-Dimethylphenol	400	NE	NO	NO	NO	
2-Nitrophenol	NE	NE	NO	NO	NO	
4-Nitrophenol	NE	NE	NO	NO	NO	
2,4-Dinitrophenol	NE	NE	NO	NO	NO	
Perchlorophenol	30	NE	NO	NO	NO	
Phenol	NE	NE	2.9	2.2	NO	
N-nitrosodiphenylamine	NE	NE	NO	NO	NO	
Benzidine	NE	NE	NA	NA	NA	
4-Bromophenyl phenyl ether	NE	NE	NO	NO	NO	
Bis(2-chloroisopropyl) ether	NE	NE	NO	NO	NO	
Bis(m,g,h,i)pcylene	NE	NE	NO	NO	NO	
Fluorene	NE	NE	NO	NO	NO	
4-Chloro-3-methylphenol	NE	NE	NO	NO	NO	
4,6-Dinitro-2-methylphenol	NE	NE	NO	NO	NO	
Aniline	NE	NE	NA	NA	NA	
Benzyl alcohol	NE	NE	NO	NO	NO	
2-Methylphenol	NE	NE	NO	NO	NO	
4-Methylphenol	NE	NE	NO	NO	NO	
Benzic acid	NE	NE	NO	NO	NO	
4-Chloronitro	NE	NE	NO	NO	NO	
2-Methylnaphthalene	NE	NE	NO	NO	NO	
2,4,5-Trichlorophenol	NE	NE	NO	NO	NO	

ALL LIMITS ARE ug/l

M4 = Monitoring Well

LDA = First Laboratory duplicate analysis

LDB = Second Laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

NA = Not analyzed

NE = Not established

TABLE 1-14. (continued)

Parameter	DEIS Action Level	U.S. EPA Primary MCL		WELL NUMBER	
		M4-27D	M4-69	M4-27D	M4-69
Ground Water Zone		MIDDLE	MIDDLE	MIDDLE	MIDDLE
Date Sampled		07/20/88	07/20/88	07/13/88	07/13/88
Sampled By		RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed		08/11/88	08/11/88	07/26/88	07/26/88
Lab		SAC	SAC	SAC	SAC
Field Analysis		LDA	LDB	LDA	LDB
Lab Analysis					
2-Nitroaniline	NE	NE	ND	ND	ND
3-Nitroaniline	NE	NE	ND	ND	ND
Dibromofuran	NE	NE	ND	ND	ND
4-Nitroaniline	NE	NE	ND	ND	ND
Benz(a)fluoranthene	NE	NE	ND	ND	ND

ALL UNITS ARE ug/l
 MW = Monitoring Well
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis
 RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento
 ND = Nothing detected
 NE = Not established

TABLE 1-15. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR THE SOUTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOHS Action Level	U.S. EPA Primary MCL	M4-280	M4-1013	M4-1014	M4-1037	M4-1038	M4-1039
Ground Water Zone			MIDDLE	SHALLOW	SHALLOW	SHALLOW	MIDDLE	DEEP
Date Sampled			07/21/88	07/15/88	07/19/88	07/14/88	07/14/88	07/14/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/25/88	07/20/88	07/21/88	07/18/88	07/18/88	07/18/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis								
Lab Analysis								
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO
Chloroethene	NE	NE	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	NO	NO	NO
Chloroform	100	100	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO
Bromodichloroethane	100	100	NO	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO
Trichloroethene	5	5	NO	NO	NO	NO	NO	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO
Benzofuran	100	100	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LOQ)0.5	NE	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

NO = Nothing detected
LOQ = Limit of quantitation
NE = Not established

TABLE 1-16. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS
FOR THE SOUTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCJERIAN AFB

Parameter	DDES Action Level	U.S. EPA Priority MCL	M4-280	M4-1013	M4-1014	M4-1037	M4-1038	M4-1039
Ground Water Zone Size Sampled			MIDDLE	SHALLOW	SHALLOW	SHALLOW	MIDDLE	DEEP
Sampled By			07/21/88	07/15/88	07/19/88	07/14/88	07/14/88	07/14/88
Date Analyzed			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Lab			07/25/88	07/20/88	07/21/88	07/18/88	07/18/88	07/18/88
Field Analysis			SAC	SAC	SAC	SAC	SAC	SAC
Lab Analysis								
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(LOQ)0.5	NE	ND	ND	ND	ND	ND	ND
Benzene	.7	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	600	NE	ND	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
ND = Nothing detected
LOQ = Limit of quantitation
NE = Not established

TABLE 1-17. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA CLP METHOD 624 COMPOUNDS FOR THE SOUTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCELLAN AFB

Parameter	DOCS		U.S. EPA		WELL NUMBER
	Action	Level	Primary	MW-280	
Ground Water Zone					MIDDLE
Date Sampled					07/21/88
Sampled By					RADIANT
Date Analyzed					08/02/88
Lab					SAC
Field Analysis					
Lab Analysis					
Chloroethane	NE	NE	NE	ND	
Bromoethane	NE	NE	NE	ND	
Vinyl chloride	2	1	NE	ND	
Chloroethane	NE	NE	NE	ND	
Methylene chloride	40	NE	NE	ND	
Trichloroethane	3400	NE	NE	NA	
1,1-Dichloroethane	6	7	ND	ND	
1,1-Dichloroethane	20	NE	NE	ND	
Total 1,2-Dichloroethane	16	NE	NE	ND	
Chloroform	100	100	ND	ND	
1,2-Dichloroethane	1	5	ND	ND	
1,1,1-Trichloroethane	200	200	ND	ND	
Carbon tetrachloride	5	5	ND	ND	
Bromodichloroethane	100	100	ND	ND	
1,2-Dichloroethane	10	NE	NE	ND	
Trans-1,3-dichloropropene	NE	NE	NE	ND	
Trichloroethane	5	5	ND	ND	
Dibromochloroethane	100	100	ND	ND	
1,1,2-Trichloroethane	100	NE	NE	ND	
cis-1,3-Dichloropropene	87	NE	NE	ND	
2-Chloroethylvinyl ether	NE	NE	NE	NA	
Benzofuran	100	100	ND	ND	
1,1,2,2-Tetrachloroethane	NE	NE	NE	ND	
Tetrachloroethane	4	NE	NE	ND	
Chlorobenzene	30	NE	NE	ND	
Benzene	.7	5	ND	ND	
Biphenylene	680	NE	NE	ND	
Toluene	100	NE	NE	ND	
Acetone	NE	NE	NE	ND	
Carbon disulfide	NE	NE	NE	ND	
2-Butanone	NE	NE	NE	ND	
Vinyl acetate	NE	NE	NE	ND	

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIANT = Radiant Corporation, Sacramento
SAC = Radiant Analytical Services, Sacramento

ND = Nothing detected
NA = Not analyzed
NE = Not established

TABLE 1-17. (continued)

Parameter	DDB		U.S. EPA		M4-2ED		WELL NUMBER
	Action	Level	Primary	MCL			
Ground Water Zone							
Data Sampled							MIDDLE
Sampled By							07/21/88
Data Analyzed							RADIAN
Lab							08/02/88
Field Analysis							SAC
Lab Analysis							
2-Hexanone	NE	NE	NE	NE	ND		
4-Methyl-2-pentanone	NE	NE	NE	NE	ND		
Styrene	NE	NE	NE	NE	ND		
Total Nylons	NE	NE	NE	NE	ND		

ALL UNITS ARE ug/l
M4 - Monitoring Well

RADIAN - Radian Corporation, Sacramento
SAC - Radian Analytical Services, Sacramento
ND - Nothing detected
NE - Not established

TABLE 1-18. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 625 COMPOUNDS
FOR THE SOUTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCCELLAN AFB

Parameter	DEHS	U.S. EPA Action Level	Primary MCL	M4-28D	WELL NUMBER
Ground Water Zone				MIDDLE	
Date Sampled				07/21/88	
Sampled By				RADIAN	
Date Analyzed				08/11/88	
Lab				SAC	
Field Analysis					
Lab Analysis					
1,3-Dichlorobenzene	130	NE	NE	ND	
1,2-Dichlorobenzene	130	NE	NE	ND	
1,4-Dichlorobenzene	NE	750	NE	ND	
Aroclor 1248	NE	NE	NE	ND	
1,2,4-Trichlorobenzene	NE	NE	NE	ND	
Benzochlorobenzene	NE	NE	NE	ND	
Bis(2-chloroethyl) ether	NE	NE	NE	ND	
2-Chloronaphthalene	NE	NE	NE	ND	
3,3'-Dichlorobenzidine	NE	NE	NE	ND	
2,4-Dinitrotoluene	NE	NE	NE	ND	
2,6-Dinitrotoluene	NE	NE	NE	ND	
Fluoranthene	NE	NE	NE	ND	
4-Chlorophenyl phenyl ether	NE	NE	NE	ND	
N-nitrosodimethylamine	NE	NE	NE	NA	
N-nitrosodi-n-propylamine	NE	NE	NE	ND	
Bis(2-ethylhexyl) phthalate	NE	NE	NE	ND	
Bicyclohexyl phthalate	NE	NE	NE	ND	
Di-n-butyl phthalate	NE	NE	NE	ND	
Di-n-octyl phthalate	NE	NE	NE	ND	
Diethyl phthalate	NE	NE	NE	ND	
Dimethyl phthalate	NE	NE	NE	ND	
Benzo(a)anthracene	NE	NE	NE	ND	
Benzo(a)pyrene	NE	NE	NE	ND	
Benzo(k)fluoranthene	NE	NE	NE	ND	
Chrysene	NE	NE	NE	ND	
Acenaphthylene	NE	NE	NE	ND	
Anthracene	(LOQ) 0.7	NE	NE	ND	
Bis(2-chloroethoxy)benzene	NE	NE	NE	ND	
Benzochlorobenzene	NE	NE	NE	ND	
Benzochlorocyclopentadiene	NE	NE	NE	ND	

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
NA = Not analyzed
LOQ = Limit of quantitation
NE = Not established

TABLE 1-18. (continued)

Parameter	DOES Action Level	U.S. EPA Priority MCL	WELL NUMBER
Ground Water Zone			MIDDLE
Date Sampled			07/21/88
Sampled By			RADIAN
Date Analyzed			08/11/88
Lab			SAC
Field Analysis			
Lab Analysis			
Isophorene	NE	NE	ND
Naphthalene	NE	NE	ND
Microbenzene	NE	NE	ND
Fluorene	NE	NE	ND
Dibenz(a,h)anthracene	NE	NE	ND
Indeno(1,2,3-cd)pyrene	NE	NE	ND
Pyrene	NE	NE	ND
2,4,6-Trichlorophenol	NE	NE	ND
2-Chlorophenol	NE	NE	ND
2,4-Dichlorophenol	NE	NE	ND
2,4-Dimethylphenol	ND	ND	ND
2-Nitrophenol	NE	NE	ND
4-Nitrophenol	NE	NE	ND
2,4-Dinitrophenol	NE	NE	ND
Pentachlorophenol	ND	ND	ND
Phenol	NE	NE	ND
4-Nitroanisole	NE	NE	ND
Benzo(a)pyrene	NE	NE	ND
4-Bromophenyl phenyl ether	NE	NE	ND
Bis(2-chloroisopropyl) ether	NE	NE	ND
Benzo(g,h,i)perylene	NE	NE	ND
Fluorene	NE	NE	ND
4-Chloro-3-methylphenol	NE	NE	ND
4,6-Dinitro-2-methylphenol	NE	NE	ND
Aniline	NE	NE	ND
Benzyl alcohol	NE	NE	ND
2-Methylphenol	NE	NE	ND
4-Methylphenol	NE	NE	ND
Benzoic acid	NE	NE	ND
4-Chloroaniline	NE	NE	ND
2-Methylnaphthalene	NE	NE	ND
2,4,5-Trichlorophenol	NE	NE	ND

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
NA = Not analyzed
NE = Not established

TABLE 1-18. (continued)

Parameter	DHS		U.S. EPA		WELL NUMBER
	Action	Level	Primary	M-2ED	
Ground Water Zone					MIDDLE
Date Sampled					07/21/88
Date Analyzed					RADIAN
Lab					08/11/88
Field Analysis					SAC
Lab Analysis					
2-Nitroaniline	NE	NE	NE	ND	
3-Nitroaniline	NE	NE	NE	ND	
Dibenzofuran	NE	NE	NE	ND	
4-Nitroaniline	NE	NE	NE	ND	
Benzo(b)fluoranthene	NE	NE	NE	ND	

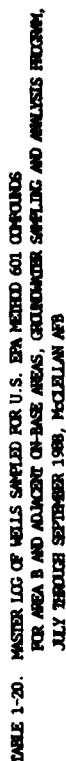
ALL UNITS ARE ug/l
MW - Monitoring Well
RADIAN - Radian Corporation, Sacramento
SAC - Radian Analytical Services, Sacramento
ND - Nothing detected
NE - Not established

TABLE 1-19. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC CONSTITUENTS FOR THE SOUTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MACLELLAN AFB

Parameter	DDES		U.S. EPA		WELL NUMBER	
	Action	Primary	M4-1013	M4-1014		
	Level	MCL				
Ground Water Zone			SHALLOW	SHALLOW		
Date Sampled			07/15/88	07/19/88		
Sampled By			RADIAN	RADIAN		
Date Analyzed						
Lab			SAC	SAC		
Field Analysis						
Lab Analysis						
Antimony	NE	NE	ND	ND		
Asenic	NE	0.050	ND	ND		
Beryllium	NE	NE	ND	ND		
Cadmium	NE	0.010	ND	ND		
Chromium	NE	0.050	0.009	ND		
Copper	NE	0.007	ND	ND		
Lead	NE	0.050	ND	ND		
Mercury	NE	0.002	ND	ND		
Nickel	NE	NE	0.16	0.050		
Selenium	NE	0.010	ND	ND		
Silver	NE	0.050	ND	ND		
Thallium	NE	NE	ND	ND		
Zinc	NE	NE	0.010	0.004		
Fluorine	NE	NE	ND	ND		
Calcium	NE	NE	ND	ND		
Chloride	NE	NE	ND	ND		
Carbonate	NE	NE	ND	ND		
Iron	NE	NE	ND	ND		
Bicarbonate	NE	NE	ND	ND		
Magnesium	NE	NE	ND	ND		
Sodium	NE	NE	ND	ND		
Sulfate	NE	NE	ND	ND		
Barium	NE	1.0	ND	ND		
Manganese	NE	NE	ND	ND		
Total Alkalinity	NE	NE	ND	ND		
Nitrate	NE	45	ND	ND		
Total Dissolved Solids	NE	NE	ND	ND		

ALL UNITS ARE mg/l
 MW - Monitoring Well

RADIAN - Radian Corporation, Sacramento
 SAC - Radian Analytical Services, Sacramento
 ND - Nothing detected
 NE - Not established

[illegible]

MW = Monitoring Well
 FDBA = First field duplicate analysis
 FDB = Second field duplicate analysis
 LDBA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis

RADIANT = Radiant Corporation, Sacramento
QES = Camanche Environmental Services
SAC = Radiant Analytical Services, Sacramento

ND = Nothing detected
C = Analysis confirmed in second column analysis
LQ = Limit of quantitation
P or PC = Identity previously confirmed
NE = Not established

TABLE 1-20. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-122	M4-132	M4-132	M4-132	WELL NUMBER
Ground Water Zone			DEEP	DEEP	DEEP	DEEP	
Date Sampled			07/19/88	07/19/88	07/19/88	07/19/88	
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	
Site Analyzed			SAC	SAC	SAC	SAC	
Lab				FDA	FDA	FDA	
Field Analysis				LDA	LDA	LDA	
Lab Analysis							
Chloroethane	NE	NE	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO
Chloroethane	NE	NE	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO
Trichloroethane	3400	NE	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	NO	NO
Chloroform	100	100	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	0.88P	0.74P	0.87P	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO
Bromodichloroethane	100	100	NO	NO	NO	NO	NO
1,2-Dichloroethane	10	NE	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO
Trichloroethane	5	5	NO	99P	83P	97P	85C
Dibromochloroethane	100	100	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO
Bromoforn	100	100	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LDQ)0.5	NE	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento
 CES = Central Environmental Services
 SAC = Radian Analytical Services, Sacramento

NO = Nothing detected
 C = Analysis confirmed in second column analysis
 LDQ = Limit of quantitation
 P or FC = Identity previously confirmed
 NE = Not established

TABLE 1-21. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS FOR AREA B AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, McLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority	WELL NUMBER						MO	DATE	ANALYST	RESULTS
			M4-230	M4-415	M4-415	M4-415	M4-415	M4-415				
Ground Water Zone			MIDDLE	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW				
Date Sampled			07/21/88	07/13/88	07/13/88	07/13/88	07/13/88	07/13/88				
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN				
Date Analyzed			07/25/88	07/14/88	07/14/88	07/14/88	07/14/88	07/12/88				
Lab			SAC	SAC	SAC	SAC	SAC	SAC				
Field Analysis				FDA	FDA	FDA	FDA	FDA				
Lab Analysis				LDA	LDA	LDA	LDA	LDA				
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LQ)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ethylbenzene	680	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 - Monitoring Well

FDA - First field duplicate analysis

FDB - Second field duplicate analysis

LDA - First laboratory duplicate analysis

LDB - Second laboratory duplicate analysis

RADIAN - Radlen Corporation, Sacramento

CES - Central Environmental Services

SAC - Radlen Analytical Services, Sacramento

NO - Nothing detected

LQ - Limit of quantitation

NE - Not established

TABLE 1-21. (continued)

Parameter	U.S. EPA		WELL NUMBER	
	Action	Primary	M4-122	M4-132
Ground Water Zone	Level	MOI		
Date Sampled			07/18/88	07/18/88
Sampled By			RADIAN	RADIAN
Date Analyzed			07/19/88	08/01/88
Lab			SAC	CSS
Field Analysis			FDA	FDA
Lab Analysis			LDA	LDB
Chlorobenzene	30	NE	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO
Benzene	.7	5	NO	NO
Ethylbenzene	680	NE	NO	NO
Toluene	100	NE	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FDB = Second field duplicate analysis

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

 RADIAN = Radian Corporation, Sacramento
 CSS = Canale Environmental Services
 SAC = Radian Analytical Services, Sacramento

 NO = Nothing detected
 LOQ = Limit of quantitation
 NE = Not established

TABLE 1-22. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA QLP METHOD 624 COMPOUNDS FOR AREA B AND ADJACENT ON-BASE AREAS; GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, McLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-63	M4-120	M4-120	M4-120	M4-132
Ground Water Zone			DEEP	SHALLOW	SHALLOW	SHALLOW	DEEP
Date Sampled			07/13/88	07/11/88	07/11/88	07/11/88	07/18/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/19/88	07/28/88	07/16/88	07/21/88	07/28/88
Lab			SAC	SAC	SAC	CES	SAC
Field Analysis				FDA	FDA		
Lab Analysis							
Chloroethers	NE	NE	ND	ND	ND	ND	ND
Bromoethers	NE	NE	ND	ND	ND	ND	ND
Vinyl chloride	2	1	ND	ND	ND	ND	ND
Chloroethers	NE	NE	ND	ND	ND	ND	ND
Methylene chloride	40	NE	ND	ND	ND	ND	ND
Trichlorofluoromethane	3400	NE	NA	ND	ND	ND	NA
1,1-Dichloroethers	6	7	ND	ND	ND	ND	ND
1,1-Dichloroethers	20	NE	ND	ND	ND	ND	ND
Total 1,2-Dichloroethers	16	NE	13	8.5	8.1	ND	29
Chloroform	100	100	ND	ND	ND	ND	ND
1,2-Dichloroethers	1	5	ND	ND	ND	ND	ND
1,1,1-Trichloroethers	200	200	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	ND	ND	ND	ND	ND
Bromochloroethers	100	100	ND	ND	ND	ND	ND
1,2-Dichloroethers	10	NE	ND	ND	ND	ND	ND
Trans-1,3-dichloropropene	NE	NE	ND	ND	ND	ND	ND
Trichloroethers	5	5	700	8.7	8.3	7.6	76
Dibromochloroethers	100	100	ND	ND	ND	ND	ND
1,1,2-Trichloroethers	100	NE	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	87	NE	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	NE	NE	NA	ND	ND	ND	NA
Bromoform	100	100	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethers	NE	NE	ND	ND	ND	ND	ND
Tetrachloroethers	4	NE	27	ND	ND	ND	ND
Chlorobenzene	30	NE	ND	ND	ND	ND	ND
Benzene	7	5	ND	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND	ND
Acetone	NE	NE	ND	ND	ND	NA	ND
Carbon disulfide	NE	NE	ND	ND	ND	NA	ND
2-Butanone	NE	NE	ND	ND	ND	NA	ND
Vinyl acetate	NE	NE	ND	ND	ND	NA	ND

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FDB = Second field duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Canine Environmental Services

SAC = Radian Analytical Services, Sacramento

ND = Nothing detected

NA = Not analyzed

NE = Not established

TABLE 1-22. (continued)

Parameter	DOHS Action Level	U.S. EPA Primary MCL	WELL NUMBER			
			M4-41S	M4-63	M4-120	M4-132
Ground Water Zone						
Date Sampled			SHALLOW 07/13/88	DEEP 07/15/88	SHALLOW 07/11/88	DEEP 07/18/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/19/88	07/28/88	07/16/88	07/28/88
Lab			SAC	SAC	SAC	SAC
Field Analysis						
Lab Analysis				FDA	FEB	
2-Hexane	NE	NE	ND	ND	ND	ND
4-Methyl-2-pentane	NE	NE	ND	ND	ND	ND
Styrene	NE	NE	ND	ND	ND	ND
Total Nylanes	NE	NE	NR	NR	NR	NR

ALL UNITS ARE ug/l

MJ = Monitoring Well

FDA = First field duplicate analysis

FEB = Second field duplicate analysis

RADIAN = Radlan Corporation, Sacramento

CES = Canula Environmental Services

SAC = Radlan Analytical Services, Sacramento

ND = Nothing detected

NR = Not reported

NA = Not analyzed

NE = Not established

TABLE 1-23. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 625 COMPOUNDS
FOR AREA B AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	Ground Water Zone	Date Sampled Sampled By	Date Analyzed Lab	Field Analysis Lab Analysis	U.S. EPA		WELL NUMBER			
					Action	Primary MCL	M4-41S	M4-63	M4-120	M4-120
					Level		SHALLOW	DEEP	SHALLOW	DEEP
							07/13/88	07/15/88	07/11/88	07/18/88
							RADIAN	RADIAN	RADIAN	RADIAN
							07/26/88	07/25/88	07/23/88	08/10/88
							SAC	SAC	CES	SAC
								FDA	FTB	
1,3-Dichlorobenzene	130	NE	NE	NE			ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	NE	NE			ND	ND	ND	ND
1,4-Dichlorobenzene	NE	750	NE	NE			ND	ND	ND	ND
Acesulfame	NE	NE	NE	NE			ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
Heachlorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
Heachlorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
Bis(2-chloroethyl) ether	NE	NE	NE	NE			ND	ND	ND	ND
2-Chloroethylbenzene	NE	NE	NE	NE			ND	ND	ND	ND
3,3'-Dichlorobenzidine	NE	NE	NE	NE			ND	ND	ND	ND
2,4-Dinitrochlorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
2,6-Dinitrochlorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
Fluorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
4-Chlorophenyl phenylether	NE	NE	NE	NE			ND	ND	ND	ND
N-nitrosodimethylamine	NE	NE	NE	NE			ND	ND	ND	ND
N-nitrosodi-n-propylamine	NE	NE	NE	NE			ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	NE	NE	NE	NE			ND	ND	ND	ND
Butylbenzyl phthalate	NE	NE	NE	NE			ND	ND	ND	ND
Di-n-butyl phthalate	NE	NE	NE	NE			ND	ND	ND	ND
Di-n-octyl phthalate	NE	NE	NE	NE			ND	ND	ND	ND
Diethyl phthalate	NE	NE	NE	NE			ND	ND	ND	ND
Dioctyl phthalate	NE	NE	NE	NE			ND	ND	ND	ND
Benz(a)anthracene	NE	NE	NE	NE			ND	ND	ND	ND
Benz(a)pyrene	NE	NE	NE	NE			ND	ND	ND	ND
Benz(k)fluoranthene	NE	NE	NE	NE			ND	ND	ND	ND
Chrysene	NE	NE	NE	NE			ND	ND	ND	ND
Acenaphthylene	NE	NE	NE	NE			ND	ND	ND	ND
Anthracene	(100)0.7	NE	NE	NE			ND	ND	ND	ND
Bis(2-chloroethyl)methane	NE	NE	NE	NE			ND	ND	ND	ND
Heachlorobenzene	NE	NE	NE	NE			ND	ND	ND	ND
Heachlorocyclopentadiene	NE	NE	NE	NE			ND	ND	ND	ND

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FTB = Second field duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Caronde Environmental Services

SAC = Radian Analytical Services, Sacramento

NE = Nothing detected

NA = Not analyzed

LOQ = Limit of quantitation

NE = Not established

TABLE 1-23. (continued)

Parameter	DOES Action Level	U.S. EPA Priority ML	M4-415	M4-63	M4-120	M4-120	M4-120	WELL NUMBER
Ground Water Zone			SHALLOW	DEEP	SHALLOW	SHALLOW	SHALLOW	DEEP
Date Sampled			07/13/88	07/15/88	07/11/88	07/11/88	07/11/88	07/18/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/26/88	07/25/88	07/25/88	07/25/88	07/23/88	08/10/88
Lab			SAC	SAC	SAC	SAC	CES	SAC
Field Analysis					FDA	FTB		
Lab Analysis								
Leptobenzene	NE	NE	NO	NO	NO	NO	NO	NO
Naphthalene	NE	NE	NO	NO	NO	NO	NO	NO
Nitrobenzene	NE	NE	NO	NO	NO	NO	NO	NO
Phenanthrene	NE	NE	NO	NO	NO	NO	NO	NO
Dibenz(a,h)anthracene	NE	NE	NO	NO	NO	NO	NO	NO
Indeno(1,2,3-cd)pyrene	NE	NE	NO	NO	NO	NO	NO	NO
Pyrene	NE	NE	NO	NO	NO	NO	NO	NO
2,4,6-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO
2-Chlorophenol	NE	NE	NO	NO	NO	NO	NO	NO
2,4-Dichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO
2,4-Dimethylphenol	400	NE	NO	NO	NO	NO	NO	NO
2-Nitrophenol	NE	NE	NO	NO	NO	NO	NO	NO
4-Nitrophenol	NE	NE	NO	NO	NO	NO	NO	NO
2,4-Dinitrophenol	NE	NE	NO	NO	NO	NO	NO	NO
Pentachlorophenol	30	NE	NO	NO	NO	NO	NO	NO
Phenol	NE	NE	NO	NO	NO	NO	NO	NO
4-Nitrosodiphenylamine	NE	NE	NO	NO	NO	NO	NO	NO
Benzidine	NE	NE	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenylether	NE	NE	NO	NO	NO	NO	NO	NO
Bis(2-chloroisopropyl)ether	NE	NE	NO	NO	NO	NO	NO	NO
Benz(g,h,i)pyrene	NE	NE	NO	NO	NO	NO	NO	NO
Fluorene	NE	NE	NO	NO	NO	NO	NO	NO
4-Chloro-3-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO
4,6-Dinitro-2-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO
Aniline	NE	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NE	NO	NO	NO	NO	NO	NO
2-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO
4-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO
Benzoic acid	NE	NE	NO	NO	NO	NO	NA	NO
4-Chloroaniline	NE	NE	NO	NO	NO	NO	NA	NO
2-Methylphtalene	NE	NE	NO	NO	NO	NO	NO	NO
2,4,5-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l
 M4 = Monitoring Well
 FDA = First field duplicate analysis
 FTB = Second field duplicate analysis
 RADIAN = Radian Corporation, Sacramento
 CES = Canale Environmental Services
 SAC = Radian Analytical Services, Sacramento
 NO = Nothing detected
 NA = Not analyzed
 NE = Not established

TABLE 1-23. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-41S	M4-63	M4-120	M4-120	M4-120	WELL NUMBER
Ground Water Zone								
Data Sampled			SHALLOW	DEEP	SHALLOW	SHALLOW	DEEP	
Supplied By			07/13/88	07/15/88	07/11/88	07/11/88	07/18/88	
Data Analyzed			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	
Lab			07/26/88	07/25/88	07/25/88	07/23/88	08/10/88	
Field Analysis			SAC	SAC	SAC	CES	SAC	
Lab Analysis					FDA	FEB		
2-Nitroaniline	NE	NE	ND	ND	ND	NA	ND	
3-Nitroaniline	NE	NE	ND	ND	ND	NA	ND	
Dibenzofuran	NE	NE	ND	ND	ND	NA	ND	
4-Nitroaniline	NE	NE	ND	ND	ND	NA	ND	
Benzo(b)Fluoranthene	NE	NE	ND	ND	ND	ND	ND	

ALL UNITS ARE ug/l

M4 = Monitoring Well
 FDA = First field duplicate analysis
 FEB = Second field duplicate analysis

RADIAN = Radian Corporation, Sacramento
 CES = Cerro Environmental Services
 SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
 NA = Not analyzed
 NE = Not established

TABLE 1-2A. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS FOR AREA B AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCLAIN AFB

Parameter	DDES		U.S. EPA		WELL NUMBER
	Action Level	Primary	MCL	MCL	
Ground Water Zone					MIDDLE
Date Sampled					07/13/88
Sampled By					RADIANT
Date Analyzed					
Lab					SAC
Field Analysis					
Lab Analysis					
Antimony	NE	NE	NE	NO	
Arsenic	NE	0.050	NE	NO	
Barium	NE	NE	NE	NO	
Beryllium	NE	0.010	NE	NO	
Cadmium	NE	0.050	NE	0.018	
Chromium	NE	NE	NE	NO	
Copper	NE	0.050	NE	NO	
Lead	NE	0.002	NE	NO	
Mercury	NE	NE	NE	0.050	
Nickel	NE	0.010	NE	NO	
Selenium	NE	0.050	NE	NO	
Silver	NE	NE	NE	NO	
Thallium	NE	NE	NE	0.009	
Zinc	NE	NE	NE	NO	
Fluoride	NE	NE	NE	NO	
Calcium	NE	NE	NE	NO	
Chloride	NE	NE	NE	NO	
Carbonate	NE	NE	NE	NO	
Iron	NE	NE	NE	NO	
Bromide	NE	NE	NE	NO	
Magnesium	NE	NE	NE	NO	
Sodium	NE	NE	NE	NO	
Sulfate	NE	NE	NE	NO	
Barium	NE	1.0	NE	NO	
Manganese	NE	NE	NE	NO	
Total Alkalinity	NE	NE	NE	NO	
Nitrate	NE	4.5	NE	NO	
Total Dissolved Solids	NE	NE	NE	NO	

ALL UNITS ARE mg/l
 MW = Monitoring Well
 RADIANT = Radiant Corporation, Sacramento
 SAC = Radiant Analytical Services, Sacramento
 ND = Nothing detected
 NE = Not established

TABLE 1-25. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 8260/10 COMPOUNDS FOR AREA B AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCELLENN AFB

Parameter	DDB Action Level	U.S. EPA Primary MCL			WELL NUMBER	
		M4-120	M4-120	M4-120		
Ground Water Zone		SHALLOW	SHALLOW	SHALLOW		
Date Sampled		07/11/88	07/11/88	07/11/88		
Sampled By		RADIAN	RADIAN	RADIAN		
Date Analyzed		07/14/88	07/14/88	07/14/88		
Lab		SAC	SAC	OES		
Field Analysis		FDA	FTB			
Lab Analysis						
Total cyanide	0.200	0.200	ND	ND	ND	ND
Aspirable cyanide	0.200	0.200	ND	ND	NA	NA

ALL UNITS ARE mg/l
 M4 - Monitoring Well
 FDA - First field duplicate analysis
 FTB - Second field duplicate analysis
 RADIAN - Radian Corporation, Sacramento
 OES - On-site Environmental Services
 SAC - Radian Analytical Services, Sacramento
 ND - Nothing detected
 NA - Not analyzed

TABLE 1-26. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR THE SOUTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MACLELLAN AFB

Parameter	DECS Action Level	U.S. EPA Primary MCL	WELL NUMBER	MA-1000	MA-1011	MA-1015	MA-1016	MA-1020	MA-1021	MA-1022	MA-1022	MA-1022	MA-1022	MA-1023
Ground Water Zone				MIDDLE	SHALLOW	MIDDLE	SHALLOW	SHALLOW	SHALLOW	MIDDLE	MIDDLE	MIDDLE	MIDDLE	SHALLOW
Date Sampled				07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/19/88	07/19/88	07/19/88	07/19/88	07/19/88	07/08/88
Sampled By				RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT
Date Analyzed				07/20/88	07/20/88	07/20/88	07/21/88	07/20/88	07/21/88	07/21/88	07/21/88	07/21/88	07/29/88	07/11/88
Lab				SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	CEB	SAC
Field Analysis									FDN	FDN	FDN	FDN		
Lab Analysis									FDN	FDN	FDN	FDN		
Chloroethers	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethers	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroethers	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethers	3400	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethers	6	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,1-Dichloroethers	20	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total 1,2-Dichloroethers	16	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroform	100	100		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethers	1	5		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,1-Trichloroethers	200	200		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromodichloroethers	100	100		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethers	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloroethers	5	5		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethers	5	5		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dibromochloroethers	100	100		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethers	100	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloroethers	87	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzofuran	100	100		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethers	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethers	4	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LOD)0.5	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

MA = Monitoring Well
FDN = First field duplicate analysis
SAC = Second field duplicate analysis
LDA = First laboratory duplicate analysis
LDB = Second laboratory duplicate analysis

RADIANT = Radiant Corporation, Sacramento
CEB = Ceram Environmental Services
SAC = Radiant Analytical Services, Sacramento

NO = Nothing detected
C = Analysis confirmed in second column analysis
LOQ = Limit of quantitation
P or FC = Identity previously confirmed
NE = Not established

TABLE 1-26. (continued)

Parameter	DOSS		U.S. EPA		M4-1025		WELL NUMBER
	Action	Level	Primary	M4-1024	M4-1025		
Ground Water Zone							
Date Sampled							
Sampled By							
Date Analyzed							
Lab							
Field Analysis							
Lab Analysis							
Chloroethane	NE	NE	NE	NE	NE	NE	NE
Bromoethane	NE	NE	NE	NE	NE	NE	NE
Vinyl chloride	2	1	NO	NO	NO	NO	NO
Chloroethene	NE	NE	NE	NE	NE	NE	NE
Methylene chloride	40	NE	NE	NE	NE	NE	NE
Trichloroethene	3400	NE	NE	NE	NE	NE	NE
1,1-Dichloroethene	6	7	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NE	NE	NE	NE	NE
Total 1,2-Dichloroethane	16	NE	NE	NE	NE	NE	NE
Chloroform	100	100	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO
Bromodichloroethane	100	100	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NE	NE	NE	NE	NE
Trans-1,3-dichloropropene	NE	NE	NE	NE	NE	NE	NE
Trichloroethane	5	5	NO	NO	NO	NO	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NE	NE	NE	NE	NE
cis-1,3-Dichloropropene	87	NE	NE	NE	NE	NE	NE
2-Chloroethylvinyl ether	NE	NE	NE	NE	NE	NE	NE
Benzofuran	100	100	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NE	NE	NE	NE	NE
Tetrachloroethane	4	NE	NE	NE	NE	NE	NE
Chlorobenzene	30	NE	NE	NE	NE	NE	NE
1,3-Dichlorobenzene	130	NE	NE	NE	NE	NE	NE
1,2-Dichlorobenzene	130	NE	NE	NE	NE	NE	NE
1,4-Dichlorobenzene	(LOQ)0.5	NE	NE	NE	NE	NE	NE

ALL UNITS ARE ug/l
M4 = Monitoring Well

DOSS = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

NE = Nothing detected
LOQ = Limit of quantitation
NE = Not established

TABLE 1-27. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS
FOR THE SOUTHWEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER									
			M4-1000	M4-1011	M4-1015	M4-1016	M4-1020	M4-1021	M4-1022	M4-1022	M4-1022	M4-1023
Ground Water Zone			MIDDLE	SHALLOW	MIDDLE	SHALLOW	SHALLOW	SHALLOW	MIDDLE	MIDDLE	MIDDLE	SHALLOW
Date Sampled			07/15/88	07/15/88	07/15/88	07/19/88	07/15/88	07/19/88	07/19/88	07/19/88	07/19/88	07/08/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/20/88	07/20/88	07/20/88	07/21/88	07/20/88	07/21/88	07/21/88	07/21/88	07/29/88	07/11/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	CES	SAC
Field Analysis								FDA	FDA	FDA		
Lab Analysis								LDA	LDA	LDA		
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ethylbenzene	600	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO	NO	0.31C	NO	0.34P	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FDB = Second field duplicate analysis

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Central Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LQ = Limit of quantitation

P or FC = Identity previously confirmed

NE = Not established

TABLE 1-27. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-102A	M4-1025	WELL NUMBER
Ground Water Zone			MIDDLE	DEEP	
Date Sampled			07/08/88	07/08/88	
Sampled By			RADIAN	RADIAN	
Date Analyzed			07/11/88	07/11/88	
Lab			SAC	SAC	
Field Analysis					
Lab Analysis					
Chlorobenzene	30	NE	ND	ND	
1,3-Dichlorobenzene	130	NE	ND	ND	
1,2-Dichlorobenzene	130	NE	ND	ND	
1,4-Dichlorobenzene	(100)0.5	NE	ND	ND	
Benzene	.7	5	ND	ND	
Ethylbenzene	680	NE	ND	ND	
Toluene	100	NE	ND	ND	

ALL UNITS ARE ug/l
M4 - Monitoring Well

RADIAN - Radian Corporation, Sacramento
SAC - Radian Analytical Services, Sacramento
ND - Nothing detected
LOQ - Limit of quantitation
NE - Not established

TABLE 1-28. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS FOR THE SOUTHWEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MOBILE/AN ARS

Parameter	DHS Action Level	U.S. EPA Primary MCL	WELL NUMBER
Ground Water Zone		SHALLOW	
Date Sampled		07/19/88	
Sampled By		RADIANT	
Date Analyzed		SAC	
Lab			
Field Analysis			
Lab Analysis			
Antimony	NE	NE	ND
Arsonic	NE	0.050	ND
Barium	NE	NE	ND
Beryllium	NE	0.010	ND
Cadmium	NE	0.050	0.008
Chromium	NE	NE	0.006
Copper	NE	0.050	ND
Lead	NE	0.002	ND
Mercury	NE	NE	0.039
Nickel	NE	0.010	ND
Selenium	NE	0.050	ND
Silver	NE	NE	ND
Tellurium	NE	NE	ND
Zinc	NE	NE	0.004
Fluoride	NE	NE	ND
Calcium	NE	NE	ND
Chloride	NE	NE	ND
Carbonate	NE	NE	ND
Iron	NE	NE	ND
Bicarbonate	NE	NE	ND
Magnesium	NE	NE	ND
Sodium	NE	NE	ND
Sulfate	NE	NE	ND
Barium	NE	1.0	ND
Manganese	NE	NE	ND
Total Alkalinity	NE	NE	ND
Nitrate	NE	45	ND
Total Dissolved Solids	NE	NE	ND

ALL UNITS ARE mg/l
MW - Monitoring Well

RADIANT - Radiant Corporation, Sacramento
SAC - Radiant Analytical Services, Sacramento

ND - Nothing detected
NE - Not established

TABLE 1-29. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA MONITOR SURVIVO COMPOUNDS
FOR THE SOUTHWEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOHS Action Level	U.S. EPA Primary MCL	M4-1000	M4-1020	WELL NUMBER
Ground Water Zone			MIDDLE	SHALLOW	
Date Sampled			07/15/88	07/15/88	
Sampled By			RADIAN	RADIAN	
Date Analyzed			07/27/88	07/27/88	
Lab			SAC	SAC	
Field Analysis					
Lab Analysis					
Total cyanide	0.200	0.200	ND	ND	
Ammonia cyanide	0.200	0.200	ND	ND	
ALL UNITS ARE mg/l					
M4 - Monitoring Well					
RADIAN - Radian Corporation, Sacramento					
SAC - Radian Analytical Services, Sacramento					
ND - Nothing detected					

TABLE 1-30. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR AREA C AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MOBILE/AN ARB

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER									
			M4-20D	M4-21D	M4-21S	M4-22D	M4-33S	M4-33S	M4-33S	M4-36S	M4-36S	M4-36S
Ground Water Zone			MIDDLE	MIDDLE	SHALLOW	DEEP	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
Date Sampled			07/13/88	07/18/88	07/26/88	07/14/88	07/21/88	07/21/88	07/21/88	07/11/88	07/11/88	07/11/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/14/88	07/19/88	07/27/88	07/18/88	07/25/88	07/25/88	08/10/88	07/13/88	07/13/88	07/14/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	CES	SAC	SAC	SAC
Field Analysis							FDA	FDA	FDA	FDA	FDA	FDA
Lab Analysis							LDA	LDA	LDA	LDA	LDA	LDA
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroethene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroform	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethane	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromodum	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FDB = Second field duplicate analysis

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Caron Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-30. (continued)

Parameter	DOHS Action Level	U.S. EPA Primary MCL	WELL NUMBER											
			M4-36S	M4-44S	M4-44S	M4-60	M4-61	M4-62	M4-75	M4-107	M4-108	M4-109	M4-110	
Ground Water Zone			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	MIDDLE	SHALLOW	MIDDLE	DEEP	SHALLOW	
Date Sampled			07/11/88	07/20/88	07/20/88	07/20/88	07/20/88	07/26/88	07/20/88	07/12/88	07/12/88	07/12/88	07/25/88	
Sampled by			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	
Date Analyzed			08/02/88	07/22/88	07/22/88	07/22/88	07/22/88	07/22/88	07/22/88	07/13/88	07/13/88	07/14/88	07/26/88	
Lab			CES	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	
Field Analysis														
Lab Analysis			LDA	LDB										
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Chloroethene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Trichloroethene	3400	NE	20C	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,1-Dichloroethane	6	7	NO	4.8P	4.5C	NO	0.15P	0.3P	NO	NO	NO	NO	NO	
1,1-Dichloroethane	20	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Chloroform	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Bromodichloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,2-Dichloropropene	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Trans-1,3-dichloropropene	NE	NE	NO	0.9P	1.1C	NO	7.9P	1.3P	26C	NO	NO	NO	NO	
Trichloroethane	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Bromodim	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	0.22C	NO	NO	NO	NO	
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	1.4C	NO	NO	NO	NO	
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	

ALL UNITS ARE ug/l

M4 = Monitoring Well

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Ceramie Environmental Services

SAC = Radian Analytical Services, Sacramento

NE = Nothing detected

C = Analysis confirmed in second column analysis

LOQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-30. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER									
			M4-111	M4-112	M4-113	M4-114	M4-115	M4-128	M4-128	M4-128	M4-128	M4-130
Ground Water Zone			SHALLOW	DEEP	MIDDLE	SHALLOW	MIDDLE	SHALLOW	SHALLOW	SHALLOW	SHALLOW	DEEP
Date Sampled			07/12/88	07/11/88	07/11/88	07/12/88	07/18/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/14/88	07/12/88	07/12/88	07/13/88	07/19/88	07/13/88	07/13/88	08/02/88	07/14/88	07/14/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	CS	SAC	SAC
Field Analysis								FDA	FDA	FDA	FDA	FDA
Lab Analysis								LDA	LDA	LDA	LDA	LDA
Chloroethene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	40	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	3400	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	6	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	20	NE	1.7C	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethene	16	NE	1.2C	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	100	100	0.36C	ND	ND	ND	ND	300C	340C	ND	ND	ND
1,2-Dichloroethane	1	5	0.17C	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloroethane	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,3-dichloropropene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	1.4C	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloroethane	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	100	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	87	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoforn	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethane	4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(LOQ)0.5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l
 M4 = Monitoring Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis
 RADIAN = Radian Corporation, Sacramento
 CCS = Canale Environmental Services
 SAC = Radian Analytical Services, Sacramento
 ND = Nothing detected
 C = Analysis confirmed in second column analysis
 LOQ = Limit of quantitation
 P or FC = Identity previously confirmed
 NE = Not established

TABLE 1-30. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER											
			M4-130	M4-130	M4-131	M4-131	M4-131	M4-133	M4-134	M4-135	M4-136	M4-137		
Ground Water Zone			DEEP	DEEP	SHALLOW	SHALLOW	SHALLOW	DEEP	DEEP	MIDDLE	DEEP	DEEP	DEEP	
Date Sampled			07/12/88	07/12/88	07/13/88	07/13/88	07/13/88	07/11/88	07/11/88	07/11/88	07/14/88	07/14/88	07/14/88	
Sampled By			RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	
Date Analyzed			07/14/88	08/02/88	07/15/88	07/15/88	08/12/88	07/12/88	07/12/88	07/12/88	07/15/88	07/15/88	07/15/88	
Lab			SAC	CES	SAC	SAC	CES	SAC	SAC	SAC	SAC	SAC	SAC	
Field Analysis			FOA	FOA	FOA	FOA	FOA	FOA	FOA	FOA	FOA	FOA	FOA	
Lab Analysis			LDB									LDB	LDB	
Chloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromoethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Vinyl chloride	2	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroethene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene chloride	40	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethene	3400	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Dichloroethane	6	7	2.8P	3.0P	2.7C	2.7C	2.7C	2.7C	2.7C	2.7C	2.7C	2.7C	2.7C	
1,1-Dichloroethane	20	NE	4.2P	4.7P	5.2C	5.2C	5.2C	5.2C	5.2C	5.2C	5.2C	5.2C	5.2C	
Total 1,2-Dichloroethane	16	NE	0.6P	0.7P	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroform	100	100	0.24P	0.37P	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	200	200	0.44P	0.70P	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon tetrachloride	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromodichloroethane	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropene	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trans-1,3-dichloropropene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethene	5	5	2.0P	2.2P	1.5C	1.5C	1.5C	1.5C	1.5C	1.5C	1.5C	1.5C	1.5C	
Dibromochloroethane	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1,2-Trichloroethane	100	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropene	87	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Chloroethylvinyl ether	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromobenzene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1,2,2-Tetrachloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Tetrachloroethane	4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	(100)0.5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

ALL UNITS ARE ug/l

MJ = Monitoring Well
 FOA = First field duplicate analysis
 FDB = Second field duplicate analysis
 LDB = First laboratory duplicate analysis
 LTB = Second laboratory duplicate analysis

RADIANT = Radiant Corporation, Sacramento
 CES = Ceramix Environmental Services
 SAC = Radiant Analytical Services, Sacramento

ND = Nothing detected
 C = Analysis confirmed in second column analysis
 LOQ = Limit of quantitation
 P or PC = Identity previously confirmed
 NE = Not established

TABLE 1-30. (continued)

Parameter	DDES Action Level	U.S. EPA Primary MCL	M4-137	M4-137	M4-137	M4-136	M4-139	M4-140	M4-141	M4-143
Ground Water Zone			DEEP	DEEP	DEEP	DEEP	SHALLOW	DEEP	DEEP	DEEP
Date Sampled			07/14/88	07/14/88	07/14/88	07/14/88	07/08/88	07/07/88	07/08/88	07/21/88
Sampled By			RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT
Date Analyzed			07/15/88	07/15/88	08/02/88	07/15/88	07/11/88	07/08/88	07/11/88	07/25/88
Lab			SAC	SAC	CSS	SAC	SAC	SAC	SAC	SAC
Field Analysis			FTB	FTB						
Lab Analysis			LDB							
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO	NO
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethane	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	8.0C	8.0C	NO	NO	1.3C	NO	1.3C	NO
Total 1,2-Dichloroethane	16	NE	8.0C	8.3C	NO	NO	24C	NO	58C	NO
Chloroform	100	100	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO
Bromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethane	5	5	310C	320C	340C	NO	83C	53P	160C	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO
Benzofuran	100	100	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

MW = Monitoring Well

FTA = First field duplicate analysis

FTB = Second field duplicate analysis

LDB = Second laboratory duplicate analysis

RADIANT = Radiant Corporation, Sacramento

CSS = Central Environmental Services

SAC = Radiant Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-31. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS
FOR AREA C AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCCLURE AFB

Parameter	DOBS	U.S. EPA	Action	Primary	MC	M4-2D	M4-2D	M4-2D	M4-2D	M4-3S	M4-3S	M4-3S	M4-3S	M4-3S	M4-3S
			Level												
Ground Water Zone															
Date Sampled															
Sampled By															
Date Analyzed															
Lab															
Field Analysis															
Lab Analysis															
Chlorobenzene	30	NE													
1,3-Dichlorobenzene	130	NE													
1,2-Dichlorobenzene	130	NE													
1,4-Dichlorobenzene	(LOQ)0.5	NE													
Benzene	.7	5													
Ethylbenzene	680	NE													
Toluene	100	NE													

ALL UNITS ARE ug/l

M4 - Monitoring Well
FDA - First field duplicate analysis
FDB - Second field duplicate analysis
LDA - First laboratory duplicate analysis
LDB - Second laboratory duplicate analysis

RADIUM - Radian Corporation, Sacramento
OES - On-site Environmental Services
SAC - Radian Analytical Services, Sacramento

ND - Nothing detected
LOQ - Limit of quantitation
NE - Not established

TABLE 1-31. (continued)

Parameter	DDBS Action Level	U.S. EPA Priority MCL	M4-366	M4-44S	M4-44S	M4-50	M4-62	M4-75	M4-107	M4-108	M4-109	M4-110
Ground Water Zone			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	MIDDLE	SHALLOW	MIDDLE	DEEP	SHALLOW
Date Sampled			07/11/88	07/20/88	07/20/88	07/20/88	07/26/88	07/20/88	07/12/88	07/12/88	07/12/88	07/25/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			08/02/88	07/22/88	07/22/88	07/22/88	07/27/88	07/22/88	07/13/88	07/13/88	07/14/88	07/26/88
Lab			CES	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis												
Lab Analysis				LDA	LDB							
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(LOQ)0.5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	.7	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l

M4 - Monitoring Well

LDA - First Laboratory duplicate analysis

LDB - Second Laboratory duplicate analysis

RADIAN - Radian Corporation, Sacramento

CES - Central Environmental Services

SAC - Radian Analytical Services, Sacramento

ND - Nothing detected

LOQ - Limit of quantitation

NE - Not established

TABLE 1-31. (continued)

Parameter	DOES	U.S. EPA	Primary	M4-111	M4-112	M4-113	M4-114	M4-115	M4-128	M4-128	M4-128	M4-128	M4-129	M4-130
	Action	ML												
Ground Water Zone														
Date Sampled				07/12/88	07/11/88	07/11/88	07/12/88	07/18/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88
Sampled By				RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed				07/14/88	07/12/88	07/12/88	07/13/88	07/19/88	07/13/88	07/13/88	07/13/88	07/13/88	07/13/88	07/14/88
Lab				SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis														
Lab Analysis														
Chlorobenzene	30	NE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(LOQ)0.5	NE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	.7	5		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	NE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	100	NE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l

M4 = Monitoring Well

NE = First field duplicate analysis

FB = Second field duplicate analysis

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Concrete Environmental Services

SAC = Radian Analytical Services, Sacramento

ND = Nothing detected

LQ = Limit of quantitation

NE = Not established

TABLE 1-31. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-130	M4-130	M4-130	M4-131	M4-131	M4-131	M4-131	M4-133	M4-134	M4-135	M4-136	M4-137
Ground Water Zone			DEEP	DEEP	DEEP	SHALLOW	SHALLOW	SHALLOW	SHALLOW	DEEP	DEEP	MIDDLE	DEEP	DEEP
Date Sampled			07/12/88	07/12/88	07/12/88	07/13/88	07/13/88	07/13/88	07/13/88	07/11/88	07/11/88	07/11/88	07/14/88	07/14/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/14/88	07/14/88	08/02/88	07/15/88	07/15/88	08/12/88	08/12/88	07/12/88	07/12/88	07/12/88	07/15/88	08/02/88
Lab			SAC	SAC	CBS	SAC	SAC	SAC	CBS	SAC	SAC	SAC	SAC	CBS
Field Analysis			FDA	FDA	FDA	FDA	FDA	FDA	FDA					
Lab Analysis			LIS											
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LLO)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ethylbenzene	680	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 - Monitoring Well

FDA - First field duplicate analysis

FDB - Second field duplicate analysis

LIS - Second laboratory duplicate analysis

RADIAN - Radian Corporation, Sacramento

CBS - Central Environmental Services

SAC - Radian Analytical Services, Sacramento

NO - Nothing detected

LLO - Limit of quantization

NE - Not established

TABLE 1-31. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	MCL NUMBER									
			M4-137	M4-137	M4-137	M4-138	M4-139	M4-140	M4-141	M4-143		
Ground Water Zone			DEEP	DEEP	DEEP	DEEP	SEALION	DEEP	DEEP	DEEP		
Dates Sampled			07/14/88	07/14/88	07/14/88	07/14/88	07/08/88	07/07/88	07/08/88	07/21/88		
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN		
Dates Analyzed			07/15/88	07/15/88	07/15/88	07/15/88	07/11/88	07/08/88	07/11/88	07/25/88		
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC		
Field Analysis			FDA	FDA	FDB							
Lab Analysis			LDA	LDB								
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND	ND		
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND		
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND		
1,4-Dichlorobenzene	(LOD)0.5	NE	ND	ND	ND	ND	ND	ND	ND	ND		
Benzene	.7	5	ND	ND	ND	ND	ND	ND	ND	ND		
Ethylbenzene	660	NE	ND	ND	ND	ND	ND	ND	ND	ND		
Toluene	100	NE	ND	ND	ND	ND	ND	ND	ND	ND		
ALL UNITS ARE ug/l												
M4 - Monitoring Well												
FDA - First field duplicate analysis												
FDB - Second field duplicate analysis												
LDA - First Laboratory duplicate analysis												
LDB - Second Laboratory duplicate analysis												
RADIAN = Radian Corporation, Sacramento												
SAC = Radian Analytical Services, Sacramento												
ND = Nothing detected												
LOQ = Limit of quantitation												
NE = Not established												

TABLE 1-32. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 604 COMPOUNDS FOR AREA C AND ADJACENT ON-PAGE AREAS; GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority MCL	M4-62	M4-75	M4-128	M4-128	M4-128	WELL NUMBER
Ground Water Zone			SEMILOW	MIDDLE	SEMILOW	SEMILOW	SEMILOW	
Date Sampled			07/26/88	07/20/88	07/12/88	07/12/88	07/12/88	
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	
Date Analyzed			08/02/88	08/01/88	07/31/88	07/31/88	07/31/88	
Lab			SAC	SAC	SAC	SAC	SAC	
Field Analysis					FTB		FTB	
Lab Analysis								
2,4,6-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO
2-Chlorophenol	NE	NE	NO	NO	NO	NO	NO	NO
2,4-Dichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO
2,4-Dimethylphenol	400	NE	NO	NO	NO	NO	NO	NO
2-Nitrophenol	NE	NE	NO	NO	NO	NO	NO	NO
4-Nitrophenol	NE	NE	NO	NO	NO	NO	NO	NO
2,4-Dinitrophenol	NE	NE	NO	NO	NO	NO	NO	NO
Pentachlorophenol	50	NE	NO	NO	NO	NO	NO	NO
Phenol	NE	NE	NO	NO	NO	NO	NO	NO
4-Chloro-3-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO
4,6-Dinitro-2-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FTB = First field duplicate analysis

FTB = Second field duplicate analysis

RADIAN = Radian Corporation, Sacramento

CESS = Central Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

NE = Not established



TABLE 1-33. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA CLP METHOD 624 COMPOUNDS FOR AREA C AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MOELLAN AFB

[illegible]

ALL UNITS ARE ug/l

MD	= Monitoring Well
FDA	= First field duplicate analysis
FDB	= Second field duplicate analysis
RAILIAN	= Railien Corporation, Sacramento
CES	= Centrie Environmental Services
SAC	= Railien Analytical Services, Sacramento
ND	= Nothing detected
NA	= Not analyzed
NE	= Not established

TABLE 1-33. (continued)

Parameter	DDES U.S. EPA		WELL NUMBER		M4-114		M4-128		M4-128		M4-128		M4-129		M4-136	
	Action	Primary	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Ground Water Zone																
Date Sampled																
Sampled By																
Date Analyzed																
Lab																
Field Analysis																
Lab Analysis																
2-Bromone	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Vinyl acetate	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2-Hexene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
4-Methyl-2-pentene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Styrene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Total Xylenes	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

ALL UNITS ARE ug/l

M4 - Monitoring Well

FDN - First field duplicate analysis

FDL - Second field duplicate analysis

LDN - First laboratory duplicate analysis

LDL - Second laboratory duplicate analysis

RADIANT - Radian Corporation, Sacramento

CES - Ceres Environmental Services

SAC - Radian Analytical Services, Sacramento

ND - Nothing detected

NR - Not reported

NA - Not analyzed

NE - Not established

TABLE 1-33. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER
Ground Water Zone		DEEP	
Date Sampled		07/21/88	
Sampled By		RADIAN	
Date Analyzed		08/02/88	
Lab		SAC	
Field Analysis			
Lab Analysis			
Chloroethene	NE	NE	NO
Bromoethene	NE	NE	NO
Vinyl chloride	2	1	NO
Chloroethane	NE	NE	NO
Methylene chloride	40	NE	NO
Trichloroethene	3400	NE	NA
1,1-Dichloroethene	6	7	NO
1,1-Dichloroethane	20	NE	NO
Total 1,2-Dichloroethene	16	NE	NO
Chloroform	100	100	NO
1,2-Dichloroethane	1	5	NO
1,1,1-Trichloroethene	200	200	NO
Carbon tetrachloride	5	5	NO
Bromochloroethene	100	100	NO
1,2-Dichloroethane	10	NE	NO
Trans-1,3-dichloropropene	NE	NE	NO
Trichloroethene	5	5	NO
Dibromochloroethene	100	100	NO
1,1,2-Trichloroethene	100	NE	NO
cis-1,3-Dichloropropene	87	NE	NO
2-Chloroethyl vinyl ether	NE	NE	NA
Benzofuran	100	100	NO
1,1,2,2-Tetrachloroethene	NE	NE	NO
Tetrachloroethene	4	NE	NO
Chlorobenzene	30	NE	NO
Benzene	.7	5	NO
Ethylbenzene	680	NE	NO
Toluene	100	NE	NO
Acetone	NE	NE	NO
Carbon disulfide	NE	NE	NO
2-Butanone	NE	NE	NO
Vinyl acetate	NE	NE	NO

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
NO = Nothing detected
NA = Not analyzed
NE = Not established

TABLE 1-33. (continued)

Parameter	DOHS		U.S. EPA		WELL NUMBER
	Action Level	Priority	M-143	MCL	
Ground Water Zone				DEEP	
Date Sampled				07/21/88	
Sampled By				RADIAN	
Date Analyzed				08/01/88	
Lab				SAC	
Field Analysis					
Lab Analysis					
2-Hexene	NE	NE	NE	ND	
4-Methyl-2-pentene	NE	NE	NE	ND	
Styrene	NE	NE	NE	ND	
Total Xylenes	NE	NE	NE	ND	

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
ND = Nothing detected
NE = Not established

TABLE 1-34. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 625 COMPOUNDS FOR AREA C AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority	M4-21S	M4-33S	M4-33S	M4-61	M4-111	M4-114	M4-128	M4-128	M4-128	M4-128	M4-128	M4-129
			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	MIDDLE
Ground Water Zone														
Date Sampled			07/26/88	07/21/88	07/20/88	07/20/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88
Sampled By			RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT
Date Analyzed			08/11/88	08/11/88	08/11/88	08/11/88	07/27/88	07/27/88	07/27/88	07/27/88	07/27/88	07/27/88	07/27/88	08/10/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis														
Lab Analysis			LDA	LDA	LDB		LDA	LDA	LDA	LDB				
1,3-Dichlorobenzene	130	NE	ND	3.8	4.3	ND	ND	ND	3.2	3.2	3.5	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	31	35	ND	ND	ND	2.7	2.7	2.9	ND	ND	ND
1,4-Dichlorobenzene	NE	750	ND	7.5	8.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrochlorobenzene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrochlorobenzene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorenone	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodimethylamine	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzos(a)anthracene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzos(a)pyrene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzos(k)fluoranthene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	(LOQ)0.7 NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l

M4 = Monitoring Well
 FTA = First field duplicate analysis
 FTB = Second field duplicate analysis
 LDA = First Laboratory duplicate analysis
 LDB = Second Laboratory duplicate analysis

RADIANT = Radiant Corporation, Sacramento
 CES = Central Environmental Services
 SAC = Radiant Analytical Services, Sacramento

ND = Nothing detected
 NA = Not analyzed
 LOQ = Limit of quantitation
 NE = Not established

TABLE 1-34a. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-215	M4-33S	M4-33S	M4-61	M4-111	M4-114	M4-128	M4-128	M4-128	M4-128	M4-129
Ground Water Zone			SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	SEW/LOH	MOBILE
Date Sampled			07/26/88	07/21/88	07/21/88	07/20/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			08/11/88	08/11/88	08/11/88	08/11/88	07/27/88	07/27/88	07/27/88	07/27/88	08/10/88	07/23/88	08/10/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	CES	SAC
Field Analysis													
Lab Analysis				LDA	LDB			LDA	FDA	FDA	FDB		
Hexachlorocyclopentadiene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Leptobactins	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Naphthalene	NE	NE	NO	NO	2.2	NO	NO	NO	NO	NO	NO	NO	NO
Microbactins	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Phenanthrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dibenz(a,h)anthracene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Indeno(1,2,3-cd)pyrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Pyrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4,6-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4-Dichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4-Dimethylphenol	400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4-Dinitrophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Para-chlorophenol	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Phenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Nitroethoxyphenylamine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzidine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Bromophenyl phenylether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bis(2-chloroethoxy)ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benz(g,h,i)pyrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Fluorene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Chloro-3-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4,6-Dinitro-2-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Acridine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzyl alcohol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzoic acid	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FDB = Second field duplicate analysis

LDA = First Laboratory duplicate analysis

LDB = Second Laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Cerule Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

NA = Not analyzed

NE = Not established

TABLE 1-34. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-215	M4-335	M4-335	M4-61	M4-111	M4-114	M4-128	M4-128	M4-128	M4-128	M4-128	M4-129
Ground Water Zone			SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	SEW/LOW	NOT/LE
Date Sampled			07/26/88	07/21/88	07/21/88	07/20/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88
Sampled By			RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT
Date Analyzed			08/11/88	08/11/88	08/11/88	08/11/88	07/27/88	07/27/88	07/27/88	07/27/88	07/27/88	08/10/88	08/10/88	08/10/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis														
Lab Analysis				LDA	LDB				LDA	FDA	FDA	FDA	FDA	
4-Chloroaniline	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Methylimidazole	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4,5-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Nitroaniline	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
3-Nitroaniline	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dibenzofuran	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Nitroaniline	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzo(b)fluoranthene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 - Monitoring Well

FDA - First field duplicate analysis

FDB - Second field duplicate analysis

LDA - First laboratory duplicate analysis

LDB - Second laboratory duplicate analysis

RADIANT - Radiant Corporation, Sacramento

CES - Central Environmental Services

SAC - Radiant Analytical Services, Sacramento

NO - Nothing detected

NA - Not analyzed

NE - Not established

TABLE 1-34. (continued)

Parameter	DOES Action Level	U.S. EPA Priority ML	M4-136	M4-143	WELL NUMBER
Ground Water Zone			DESP	DESP	
Date Sampled			07/14/88	07/21/88	
Sampled By			RADIANT	RADIANT	
Date Analyzed			07/25/88	08/11/88	
Lab			SAC	SAC	
Field Analysis					
Lab Analysis					
1,3-Dichlorobenzene	120	NE	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	ND	ND
1,4-Dichlorobenzene	NE	750	ND	ND	ND
Aroclor 1248	NE	NE	ND	ND	ND
1,2,4-Trichlorobenzene	NE	NE	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND
Bis(2-chloroethyl) ether	NE	NE	ND	ND	ND
2-Chlorophthalate	NE	NE	ND	ND	ND
3,3'-Dichlorobenzidine	NE	NE	ND	ND	ND
2,4-Dinitrochlorobenzene	NE	NE	ND	ND	ND
2,6-Dinitrochlorobenzene	NE	NE	ND	ND	ND
Fluoranthene	NE	NE	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	NE	ND	ND	ND
4-Nitrophenyl phenyl ether	NE	NE	ND	ND	ND
4-Nitrophenyl phenyl ether	NE	NE	ND	ND	ND
Bis(2-ethylhexyl) phthalate	NE	NE	ND	ND	ND
Bis(2-ethylhexyl) phthalate	NE	NE	ND	ND	ND
Di-n-butyl phthalate	NE	NE	ND	ND	ND
Di-n-octyl phthalate	NE	NE	ND	ND	ND
Diethyl phthalate	NE	NE	ND	ND	ND
Diethyl phthalate	NE	NE	ND	ND	ND
Benzo(a)anthracene	NE	NE	ND	ND	ND
Benzo(a)pyrene	NE	NE	ND	ND	ND
Benzo(k)fluoranthene	NE	NE	ND	ND	ND
Chrysene	NE	NE	ND	ND	ND
Acenaphthylene	NE	NE	ND	ND	ND
Anthracene	(LOQ) 0.7	NE	ND	ND	ND
Bis(2-chloroethyl) methylene	NE	NE	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND
Benzochlorobenzene	NE	NE	ND	ND	ND

ND = Nothing detected
NA = Not analyzed
LOQ = Limit of quantitation
NE = Not established

RADIANT = Radiant Corporation, Sacramento
SAC = Radiant Analytical Services, Sacramento

ALL UNITS ARE ug/l
M4 = Monitoring Well

TABLE 1-34. (continued)

Parameter	DHS U.S. EPA		U.S. EPA		WELL NUMBER	
	Action	Level	Primary	ML	M4-143	M4-143
Ground Water Zone			DEEP	DEEP	DEEP	DEEP
Date Sampled			07/14/88	07/21/88	07/21/88	07/21/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/25/88	08/11/88	08/11/88	08/11/88
Lab			SAC	SAC	SAC	SAC
Field Analysis						
Lab Analysis						
Isophore	NE	NE	NE	NE	NE	NE
Methylalene	NE	NE	NE	NE	NE	NE
Nitrobenzene	NE	NE	NE	NE	NE	NE
Phenanthrene	NE	NE	NE	NE	NE	NE
Dibenz(a,h)anthracene	NE	NE	NE	NE	NE	NE
Indene(1,2,3-cd)pyrene	NE	NE	NE	NE	NE	NE
Pyrene	NE	NE	NE	NE	NE	NE
2,4,6-Trichlorophenol	NE	NE	NE	NE	NE	NE
2-Chlorophenol	NE	NE	NE	NE	NE	NE
2,4-Dichlorophenol	NE	NE	NE	NE	NE	NE
2,4-Dimethylphenol	400	NE	NE	NE	NE	NE
2-Nitrophenol	NE	NE	NE	NE	NE	NE
4-Nitrophenol	NE	NE	NE	NE	NE	NE
2,4-Dinitrophenol	NE	NE	NE	NE	NE	NE
2,4,6-Trichlorophenol	30	NE	NE	NE	NE	NE
Phenol	NE	NE	NE	NE	NE	NE
4-nitrooxydiphenylamine	NE	NE	NE	NE	NE	NE
Benzidine	NE	NE	NE	NE	NE	NE
4-Bromophenyl phenyl ether	NE	NE	NE	NE	NE	NE
Bis(2-chlorophenyl) ether	NE	NE	NE	NE	NE	NE
Bis(2,4,6-trichlorophenyl) ether	NE	NE	NE	NE	NE	NE
Fluorene	NE	NE	NE	NE	NE	NE
4-Chloro-3-methylphenol	NE	NE	NE	NE	NE	NE
4,6-Dinitro-2-methylphenol	NE	NE	NE	NE	NE	NE
Aniline	NE	NE	NE	NE	NE	NE
Benzyl alcohol	NE	NE	NE	NE	NE	NE
2-Methylphenol	NE	NE	NE	NE	NE	NE
4-Methylphenol	NE	NE	NE	NE	NE	NE
Benzoic acid	NE	NE	NE	NE	NE	NE
4-Chloromethyl	NE	NE	NE	NE	NE	NE
2-Methylphenol	NE	NE	NE	NE	NE	NE
2,4,5-Trichlorophenol	NE	NE	NE	NE	NE	NE

 ND = Nothing detected
 NA = Not analyzed
 NE = Not established

 RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento

 ALL UNITS ARE ug/l
 M4 = Monitoring Well

TABLE 1-34. (continued)

Parameter	DDB Action Level	U.S. EPA Priority ML	M4-136	M4-143	WELL NUMBER
Ground Water Zone			DEEP	DEEP	
Date Sampled			07/16/88	07/21/88	
Sampled By			RADIAN	RADIAN	
Date Analyzed			07/25/88	08/11/88	
Lab			SAC	SAC	
Field Analysis					
Lab Analysis					
2-Nitroaniline	NE	NE	NO	NO	
3-Nitroaniline	NE	NE	NO	NO	
Dibenzodioxin	NE	NE	NO	NO	
4-Nitroaniline	NE	NE	NO	NO	
Benzo(b)fluoranthene	NE	NE	NO	NO	

ALL UNITS ARE ug/l

M4 - Monitoring Well

RADIAN - Radian Corporation, Sacramento
SAC - Radian Analytical Services, Sacramento

ND - Nothing detected
NE - Not established

TABLE 1-35. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS FOR AREA C AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority MCL	M4-21D	M4-21S	M4-22D	M4-36S	WELL NUMBER				M4-44S	M4-44S	M4-44S	M4-108	M4-114	M4-115
			MIDDLE 07/19/88 RADIAN	SEWILON 07/26/88 RADIAN	DEEP 07/14/88 RADIAN	SEWILON 07/11/88 RADIAN	SEWILON 07/20/88 RADIAN	SEWILON 07/20/88 RADIAN	SEWILON 07/20/88 RADIAN	SEWILON 07/20/88 RADIAN	SEWILON 07/20/88 RADIAN	SEWILON 07/20/88 RADIAN	SEWILON 07/20/88 RADIAN	MIDDLE 07/12/88 RADIAN	SEWILON 07/12/88 RADIAN	MIDDLE 07/19/88 RADIAN
Ground Water Zone																
Date Sampled																
Sampled By																
Date Analyzed																
Lab																
Field Analysis																
Lab Analysis																
Antimony	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	NE	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	NE	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	NE	0.050	0.013	ND	0.014	ND	0.044	0.048	0.042	0.054	0.009	0.017	0.019			
Copper	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	NE	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	NE	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	NE	NE	ND	1.7	ND	ND	0.080	0.078	0.072	0.084	ND	ND	ND	ND	ND	ND
Selenium	NE	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	NE	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	NE	NE	ND	0.018	0.003	0.004	0.005	0.004	0.004	ND	ND	ND	ND	0.005	ND	ND
Fluoride	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloride	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbonate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bicarbonate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	NE	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Alkalinity	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate	NE	45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Dissolved Solids	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE mg/l

M4 - Monitoring Well

FDA - First field duplicate analysis

FIB - Second field duplicate analysis

LDA - First laboratory duplicate analysis

LDB - Second laboratory duplicate analysis

RADIAN - Radian Corporation, Sacramento

CES - Caronde Environmental Services

SAC - Radian Analytical Services, Sacramento

ND - Nothing detected

NA - Not analyzed

NE - Not established

TABLE 1-36. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA MONITORING SURVEILLANCE COMPOUNDS
FOR AREA C AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DBS	U.S. EPA Action Level	Primary MCL	Well Number	M4-128	M4-128	M4-128	M4-128	M4-129	M4-133	M4-134	M4-135	M4-136	M4-136	M4-137
Ground Water Zone															
Data Sampled				MIDDLE	SWALLOW	SWALLOW	SWALLOW	SWALLOW	MIDDLE	DEEP	DEEP	MIDDLE	DEEP	DEEP	DEEP
Sampled By				07/18/88	07/12/88	07/12/88	07/12/88	07/12/88	07/12/88	07/11/88	07/11/88	07/11/88	07/14/88	07/14/88	07/14/88
Data Analyzed				RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Lab				07/27/88	07/26/88	07/26/88	07/26/88	07/26/88	07/26/88	07/14/88	07/14/88	07/14/88	07/28/88	07/28/88	07/28/88
Field Analysis				SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Lab Analysis				FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA
Total cyanide	0.200	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ammonia cyanide	0.200	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE mg/l

MD - Monitoring Well
FDA - First field duplicate analysis
FDB - Second field duplicate analysis
LDA - First laboratory duplicate analysis
LDB - Second laboratory duplicate analysis

RADIAN - Radian Corporation, Sacramento
CES - Central Environmental Services
SAC - Radian Analytical Services, Sacramento

ND - Nothing detected
NA - Not analyzed

TABLE 1-36. (continued)

Parameter	DEHS Action Level	U.S. EPA Primary MCL	M4-137	M4-138	M4-139	M4-140	M4-141
Ground Water Zone							
Date Sampled			DEEP	DEEP	SEALION	DEEP	DEEP
Sampled By			07/14/88	07/14/88	07/08/88	07/07/88	07/08/88
Date Analyzed			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Lab			07/28/88	07/28/88	07/12/88	07/12/88	07/12/88
Field Analysis			SAC	SAC	SAC	SAC	SAC
Lab Analysis			FTB				
Total Cyanide	0.200	0.200	ND	ND	ND	ND	ND
Assemble Cyanide	0.200	0.200	ND	ND	ND	ND	ND
ALL UNITS ARE mg/l							
M4 - Monitoring Well							
FTB - Second field duplicate analysis							
RADIAN - Radian Corporation, Sacramento							
CES - Central Environmental Services							
SAC - Radian Analytical Services, Sacramento							
ND - Nothing detected							
NA - Not analyzed							

TABLE 1-37. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS FOR THE WEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER			
			MM-1017	MM-1032	MM-1034	MM-1036
Ground Water Zone			SHALLOW	MIDDLE	SHALLOW	DEEP
Date Sampled			07/12/88	07/13/88	07/13/88	07/22/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/14/88	07/15/88	07/14/88	07/26/88
Lab			SAC	SAC	SAC	SAC
Field Analysis						
Lab Analysis						
Chloroethane	NE	NE	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO
Chloroethene	NE	NE	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO
1,1-Dichloroethene	6	7	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	0.31C
Chloroform	100	100	0.43C	NO	NO	NO
1,2-Dichloroethane	1	5	0.14C	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO
Bromochloroethane	100	100	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO
Trichloroethene	5	5	0.58C	NO	NO	0.36C
Dibromochloroethane	100	100	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO
Bromofuran	100	100	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO

ALL UNITS: NE ug/l
 MW = Monitoring Well
 RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento
 NO = Nothing detected
 C = Analysis confirmed in second column analysis
 LOQ = Limit of quantitation
 NE = Not established

TABLE 1-38. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS FOR THE WEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCELLENN AFB

Parameter	DHS Action Level	U.S. EPA Primary MCL	WELL NUMBER				
			MM-1017	MM-1018	MM-1032	MM-1033	MM-1034
Ground Water Zone			SHALLOW	SHALLOW	MIDDLE	SHALLOW	MIDDLE
Date Sampled			07/12/88	07/25/88	07/14/88	07/13/88	07/13/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/14/88	07/26/88	07/15/88	07/14/88	07/14/88
Lab			SAC	SAC	SAC	SAC	SAC
Field Analysis							
Lab Analysis							
Chlorobenzene	30	NE	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LDQ)0.5	NE	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO
Ethylbenzene	680	NE	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l
MM - Monitoring Well

RADIAN - Radlun Corporation, Sacramento
SAC - Radlun Analytical Services, Sacramento

NO - Nothing detected
LDQ - Limit of quantization
NE - Not established

TABLE 1-39. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA CJP METHOD 624 COMPOUNDS FOR THE WEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MOBILE/JAN APB

Parameter	DDBS		U.S. EPA		WELL NUMBER
	Action	Level	Priority	MCL	
Ground Water Zone					SHULON
Date Sampled					07/22/88
Sampled By					RADIAN
Date Analyzed					08/02/88
Lab					SAC
Field Analysis					
Lab Analysis					
Chloroethene	NE	NE	NE	NE	NO
Bromoethene	NE	NE	NE	NE	NO
Vinyl chloride	2	1	NO	NO	NO
Chloroethane	NE	NE	NE	NE	NO
Methylene chloride	40	NE	NE	NE	NO
Trichloroethene	3400	NE	NA	NA	NO
1,1-Dichloroethene	6	7	NO	NO	NO
1,1-Dichloroethane	20	NE	NE	NE	NO
Total 1,2-Dichloroethene	16	NE	NE	NE	NO
Chloroform	100	100	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO
1,1,1-Trichloroethene	200	200	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO
Bromodichloroethene	100	100	NO	NO	NO
1,2-Dichloropropane	10	NE	NE	NE	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO
Trichloroethene	5	5	NO	NO	NO
Dibromochloroethene	100	100	NO	NO	NO
1,1,2-Trichloroethene	100	NE	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NA
2-Chloroethylvinyl ether	NE	NE	NE	NE	NA
Bromoforn	100	100	NO	NO	NO
1,1,2,2-Tetrachloroethene	NE	NE	NO	NO	NO
Tetrachloroethene	4	NE	NO	NO	NO
Chlorobenzene	30	NE	NE	NE	NO
Benzene	.7	5	NO	NO	NO
Ethylbenzene	600	NE	NO	NO	NO
Toluene	100	NE	NE	NE	NO
Axetone	NE	NE	NE	NE	NO
Carbon disulfide	NE	NE	NO	NO	NO
2-Butanone	NE	NE	NE	NE	NO
Vinyl acetate	NE	NE	NE	NE	NO

ALL UNITS ARE ug/l
 NE = Nothing detected
 NA = Not analyzed
 NE = Not established

RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento

TABLE 1-39. (continued)

Parameter	DDBS		U.S. EPA		Well Number
	Action	Level	Priority	M4-1026	
Ground Water Zone					
Date Sampled				SWALLO	
Sampled By				07/22/88	
Date Analyzed				RADIUM	
Lab				08/02/88	
Field Analysis				SAC	
Lab Analysis					
2-Hexane	NE	NE	NE	NO	
4-Methyl-2-pentane	NE	NE	NE	NO	
Styrene	NE	NE	NE	NO	
Total Xylenes	NE	NE	NE	NO	
ALL UNITS ARE ug/l					
M4 - Monitoring Well					
RADIUM = Radian Corporation, Sacramento SAC = Radian Analytical Services, Sacramento ND = Nothing detected NE = Not established					

TABLE 1-40. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS FOR THE WEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCJELIAN AFB

Parameter	DGS		U.S. EPA		WELL NUMBER	
	Action	Level	Priority	M4-1018		
Ground Water Zone				SHALLOW		
Date Sampled				07/23/88		
Sampled By				RADIAN		
Date Analyzed						
Lab				SAC		
Field Analysis						
Lab Analysis						
Arsenic	NE	NE	NE	NO	NO	NO
Barium	NE	NE	0.050	NO	NO	NO
Beryllium	NE	NE	NE	NO	NO	NO
Cadmium	NE	NE	0.010	NO	NO	NO
Chromium	NE	NE	0.050	0.013	NO	NO
Copper	NE	NE	NE	NO	NO	NO
Lead	NE	NE	0.050	NO	NO	NO
Mercury	NE	NE	0.002	NO	NO	NO
Nickel	NE	NE	NE	0.022	NO	NO
Selenium	NE	NE	0.010	NO	NO	NO
Silver	NE	NE	0.050	NO	NO	NO
Thallium	NE	NE	NE	NO	NO	NO
Zinc	NE	NE	NE	NO	NO	NO
Fluoride	NE	NE	NE	NO	NO	NO
Calcium	NE	NE	NE	NO	NO	NO
Chloride	NE	NE	NE	NO	NO	NO
Carbonate	NE	NE	NE	NO	NO	NO
Iron	NE	NE	NE	NO	NO	NO
Bicarbonate	NE	NE	NE	NO	NO	NO
Magnesium	NE	NE	NE	NO	NO	NO
Sodium	NE	NE	NE	NO	NO	NO
Sulfate	NE	NE	NE	NO	NO	NO
Barium	NE	NE	1.0	NO	NO	NO
Manganese	NE	NE	NE	NO	NO	NO
Total Alkalinity	NE	NE	NE	NO	NO	NO
Nitrate	NE	NE	45	NO	NO	NO
Total Dissolved Solids	NE	NE	NE	NO	NO	NO

ALL UNITS ARE mg/l
M4 - Monitoring Well
RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
ND = Nothing detected
NE = Not established

TABLE 1-41. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 846010 COMPOUNDS FOR THE WEST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DDES		U.S. EPA		WELL NUMBER
	Action Level	Primary	M4-103A	MCL	
Ground Water Zone					MIDDLE
Date Sampled					07/13/88
Sampled By					RADIAN
Date Analyzed					07/26/88
Lab					SAC
Field Analysis					
Lab Analysis					
Total cyanide	0.200	0.200	NO		
Aspirable cyanide	0.200	0.200	NO		

ALL UNITS ARE mg/l
M4 - Monitoring Well

RADIAN - Radian Corporation, Sacramento
SAC - Radian Analytical Services, Sacramento
NO - Nothing detected

TABLE 1-42. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR AREA D AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCJILLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority MCL	WELL NUMBER									
			EA-73	EA-73	EA-73	EA-83	EA-83	EA-84	EA-85	EA-85	EA-86	EA-87
Ground Water Zone												
Date Sampled			08/03/88	09/02/88	09/02/88	08/03/88	09/02/88	09/02/88	08/04/88	09/02/88	08/03/88	08/04/88
Sampled By			RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM
Date Analyzed			08/08/88	09/06/88	09/06/88	08/08/88	09/06/88	09/06/88	08/10/88	08/08/88	09/06/88	08/10/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis												
Lab Analysis			LDA	LDA	LDB							
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	900P	360P	300P	NO	NO	310P	NO	NO	NO	NO
Chloroethene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	6300P	4000P	3000P	680P	570P	1200P	1200C	140P	120P	140P
1,1-Dichloroethane	20	NE	1100P	270P	220P	NO	NO	310P	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	950P	500P	370P	NO	NO	290P	NO	NO	NO	NO
Chloroform	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	43P	50P	140P	13C	NO	NO	NO
1,1,1-Trichloroethane	200	200	780P	670P	450P	NO	NO	170P	170C	68P	72P	5.6P
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-Dichloropropane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethane	5	5	1100P	780P	610P	140P	75P	1300P	920C	1100P	80P	51P
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropane	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethyl vinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromobenzene	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	58P	5.9P	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

EA = Extraction Well

LDA = First Laboratory duplicate analysis

LDB = Second Laboratory duplicate analysis

RADIUM = Radian Corporation, Sacramento

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LQ = Limit of quantization

P or PC = Identity previously confirmed

NE = Not established

Analytical data for EA-63 and EA-69 appear under EA-63 and EA-69

TABLE 1-42. (continued)

Parameter	DDBS Action Level	U.S. EPA Priority MCL	EA-87	M4-10	M4-11	M4-12	M4-14	M4-15	M4-51	M4-52	M4-53	M4-54	M4-55
Ground Water Zone													
Date Sampled			09/02/88	07/22/88	07/25/88	07/26/88	07/22/88	07/22/88	07/07/88	07/05/88	07/05/88	07/11/88	07/11/88
Sampled By			RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM
Date Analyzed			09/06/88	07/26/88	07/26/88	07/27/88	07/26/88	07/26/88	07/08/88	07/06/88	07/06/88	07/12/88	07/12/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis													
Lab Analysis													
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	360C	NO	NO	NO	NO	NO	NO	NO	2.5C	NO
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	140P	1400C	2000C	2200P	1300P	800C	NO	NO	12P	100C	52P
1,1,1-Trichloroethane	20	NE	NO	180C	NO	NO	NO	NO	NO	NO	NO	7.6C	3.7P
Total 1,2-Dichloroethane	16	NE	1.7P	460C	NO	NO	NO	NO	NO	NO	NO	7.0C	22P
Chloroform	100	100	NO	410C	NO	NO	NO	5.6C	NO	NO	NO	1.0C	1.0P
1,2-Dichloroethane	1	5	NO	410C	NO	NO	5500P	110C	NO	NO	1.3P	0.46C	2.1P
1,1,1-Trichloroethane	200	200	9.8P	2700C	NO	4500P	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethane	5	5	62P	2100C	2900C	6900P	11000P	590C	NO	NO	2.9P	7.3C	19P
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	1.3C	NO
cis-1,3-Dichloropropane	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethyl vinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzofuran	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	610P	NO	NO	NO	NO	0.22P	NO	1.7P
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	210C	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 - Monitoring Well
 EA - Extraction Well
 FDA - First field duplicate analysis
 LDA - First Laboratory duplicate analysis

RADIUM = Radiant Corporation, Sacramento
 SAC = Radiant Analytical Services, Sacramento

NO = Nothing detected
 C = Analysis confirmed in second column analysis
 LOQ = Limit of quantitation
 P or PC = Identity previously confirmed
 NE = Not established

TABLE 1-42. (continued)

Parameter	DHS Action Level	U.S. EPA Primary MCL	WELL NUMBER									
			M4-55	M4-55	M4-55	M4-57	M4-58	M4-59	M4-70	M4-72	M4-72	M4-72
Ground Water Zone			MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	DEEP	MIDDLE	MIDDLE	MIDDLE	MIDDLE
Date Sampled			07/11/88	07/11/88	07/11/88	07/06/88	07/07/88	07/07/88	07/05/88	07/21/88	07/21/88	07/21/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/12/88	07/12/88	08/16/88	07/07/88	07/08/88	07/07/88	07/06/88	07/25/88	07/25/88	08/16/88
Lab			SAC	SAC	CES	SAC	SAC	SAC	SAC	SAC	SAC	CES
Field Analysis			FOA	FOA					FOA	FOA	FOA	
Lab Analysis			LIB	LIB					LIB	LIB	LIB	
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethylene	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	4.9P	5.1P	3.1C	NO	0.14C	NO	NO	76.0P	80.0P	50.0C
1,1-Dichloroethane	20	NE	3.7P	3.9P	3.9C	NO	NO	NO	NO	5.2P	5.2P	6.5C
Total 1,2-Dichloroethane	16	NE	2.8P	2.7P	NO	NO	NO	NO	NO	8.0P	8.0P	NO
1,2-Dichloroethane	1	5	1.0P	0.98P	0.4C	NO	NO	NO	NO	1.5P	1.5P	1.2C
1,1,1-Trichloroethane	200	200	1.6P	2.8P	0.8C	NO	NO	NO	NO	3.4P	4.7P	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethane	5	5	1.7P	1.8P	1.0C	NO	NO	NO	NO	83.0P	85.0P	80.0C
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethyl vinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromodifluoromethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	1.6P	1.7P	0.8C	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FOA = First field duplicate analysis

LIB = Second field duplicate analysis

SAC = First Laboratory duplicate analysis

LIB = Second Laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Central Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LOQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-42. (continued)

Parameter	DOES Action Level	U.S. EPA Priority ML	M4-88	M4-89	M4-90	M4-91	WELL NUMBER M4-92	M4-104	M4-105
Ground Water Zone			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	DEEP	DEEP
Date Sampled			07/08/88	07/08/88	07/14/88	07/20/88	07/21/88	07/08/88	07/19/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/11/88	07/11/88	07/15/88	07/22/88	07/25/88	07/11/88	07/21/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis									
Lab Analysis									
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	7	NO	1.1C	NO	1.2C	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	0.12C	0.74C	NO	NO
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	NO	NO	NO	NO
Chloroform	100	100	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO
Bromodichloroethane	100	100	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	10	NE	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	5	5	NO	NO	NO	6.9C	3.8C	NO	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO
Benzofuran	100	100	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

NE = Nothing detected
C = Analysis confirmed in second column analysis
LOQ = Limit of quantitation
NE = Not established

TABLE 1-43. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS
FOR AREA D AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	U.S. EPA		WELL NUMBER		EA-73		EA-73		EA-83		EA-83		EA-84		EA-85		EA-85		EA-86		EA-86		EA-87	
	Action	Primary	EA-73	EA-73	EA-73	EA-73	EA-73	EA-73	EA-83	EA-83	EA-83	EA-83	EA-84	EA-84	EA-85	EA-85	EA-85	EA-85	EA-86	EA-86	EA-86	EA-86	EA-87	EA-87
Ground Water Zone																								
Date Sampled			08/03/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	09/03/88	09/03/88	09/03/88	09/03/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	09/02/88	08/04/88	08/04/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			08/09/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	08/08/88	08/08/88	08/08/88	08/08/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	09/06/88	08/10/88	08/10/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis																								
Lab Analysis				LDA	LDB																			
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(LOD)0.5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	.7	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l

EA = Extraction Well

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

Analytical data for EA-63 and EA-69 appear under M4-63 and M4-69

RADIAN = Radon Corporation, Sacramento

SAC = Radon Analytical Services, Sacramento

ND = Nothing detected

C = Analysis confirmed in second column analysis

LOQ = Limit of quantitation

NE = Not established

TABLE 1-43. (continued)

Parameter	DHS Action Level	U.S. EPA Priority MCL	BA-97	M4-10	M4-11	M4-12	M4-14	M4-15	M4-51	M4-52	M4-53	M4-54	M4-55
Ground Water Zone				SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	DEEP	MIDDLE	MIDDLE	MIDDLE	MIDDLE
Date Sampled			09/02/88	07/22/88	07/25/88	07/26/88	07/22/88	07/22/88	07/07/88	07/05/88	07/05/88	07/11/88	07/11/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			09/06/88	07/26/88	07/26/88	07/27/88	07/26/88	07/26/88	07/08/88	07/06/88	07/06/88	07/12/88	07/12/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis													FDA
Lab Analysis													LDA
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	170C	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LDQ)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ettylbenzene	680	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

BA = Monitoring Well
 BA = Extraction Well
 FDA = First field duplicate analysis
 LDA = First laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento

NO = Nothing detected
 C = Analysis confirmed in second column analysis
 LDQ = Limit of quantitation
 NE = Not established

TABLE 1-43. (continued)

Parameter	U.S. EPA		WELL NUMBER									
	CGS	Action	Priority	M4-55	M4-55	M4-57	M4-58	M4-59	M4-70	M4-72	M4-72	M4-72
	Level		REL									
Ground Water Zone												
Data Sampled				07/11/88	07/11/88	07/06/88	07/07/88	07/06/88	07/05/88	07/21/88	07/21/88	07/21/88
Sampled By				RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed				07/12/88	07/12/88	07/07/88	07/08/88	07/07/88	07/06/88	07/25/88	07/25/88	08/16/88
Lab				SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	CGS
Field Analysis				FTB	FTB					FTB	FTB	
Lab Analysis					LDB				LDA	LDB	LDB	
Chlorobenzene	30	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LUD)0.5	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5		NO	NO	NO	NO	NO	NO	NO	NO	NO
Triphenylene	680	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 - Monitoring Well

FTB - First field duplicate analysis

FTB - Second field duplicate analysis

LDA - First laboratory duplicate analysis

LDB - Second laboratory duplicate analysis

RADIAN - Radian Corporation, Sacramento

CGS - Central Environmental Services

SAC - Radian Analytical Services, Sacramento

NO - Nothing detected

LQ - Limit of quantitation

NE - Not established

TABLE 1-43. (continued)

Parameter	U.S. EPA		WELL NUMBER		DATE		DATE		DATE		DATE	
	Action Level	Primary MCL	M4-88	M4-89	M4-90	M4-91	M4-92	M4-104	M4-105			
Ground Water Zone			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	DEEP	DEEP			
Date Sampled			07/08/88	07/08/88	07/14/88	07/20/88	07/21/88	07/08/88	07/19/88			
Sampled By			RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT			
Date Analyzed			07/11/88	07/11/88	07/15/88	07/22/88	07/25/88	07/11/88	07/21/88			
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC			
Field Analysis												
Lab Analysis												
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND			
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND			
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND	ND			
1,4-Dichlorobenzene	(LOQ)0.5	NE	ND	ND	ND	ND	ND	ND	ND			
Benzene	.7	5	ND	ND	ND	ND	ND	ND	ND			
Ethylbenzene	660	NE	ND	ND	ND	ND	ND	ND	ND			
Toluene	100	NE	ND	ND	ND	0.30P	ND	ND	ND			

ALL UNITS ARE ug/l
M4 - Monitoring Well

RADIANT = Radiant Corporation, Sacramento
SAC = Radiant Analytical Services, Sacramento
ND = Nothing detected
LOQ = Limit of quantitation
P or PC = Identity previously confirmed
NE = Not established

TABLE 1-44. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 604 COMPOUNDS FOR AREA D AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOHS Action Level	U.S. EPA Primary MCL		WELL NUMBER				
		M4-10	M4-11	M4-12	M4-14	M4-15		
Ground Water Zone								
Date Sampled		07/22/88	07/25/88	07/26/88	07/22/88	07/22/88		
Sampled By		RADIANT	RADIANT	RADIANT	RADIANT	RADIANT		
Date Analyzed		08/01/88	08/02/88	08/02/88	08/01/88	08/01/88		
Lab		SAC	SAC	SAC	SAC	SAC		
Field Analysis								
Lab Analysis								
2,4,6-Trichlorophenol	NE	ND	ND	ND	ND	ND		
2-Chlorophenol	NE	ND	ND	ND	ND	ND		
2,4-Dichlorophenol	NE	ND	ND	ND	ND	ND		
2,4-Dimethylphenol	400	ND	ND	ND	ND	ND		
2-Nitrophenol	NE	ND	ND	ND	ND	ND		
4-Nitrophenol	NE	ND	ND	ND	ND	ND		
2,4-Dinitrophenol	NE	ND	ND	ND	ND	ND		
Pentachlorophenol	30	ND	ND	ND	ND	ND		
Phenol	NE	ND	ND	ND	ND	ND		
4-Chloro-3-methylphenol	NE	ND	ND	ND	ND	ND		0.2AC
4,6-Dinitro-2-methylphenol	NE	ND	ND	ND	ND	ND		ND

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIANT = Radiant Corporation, Sacramento
SAC = Radiant Analytical Services, Sacramento
ND = Nothing detected
C = Analysis confirmed in second column analysis
NE = Not established

TABLE 1-45. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA QLP MONITORING 624 COMPOUNDS FOR AREA D AND ADJACENT ON-RACE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCLELLAN AFB

Parameter	DURS	U.S. EPA	EA-73	EA-73	EA-73	EA-63	EA-64	EA-65	EA-67	EA-51	EA-53	EA-55
	Action	Primary	ML									
Ground Water Zone												
Date Sampled			07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/07/88	07/05/88	07/11/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/16/88	07/16/88	07/16/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis			FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA
Lab Analysis			LIA	LIA	LIA	LIA	LIA	LIA	LIA	LIA	LIA	LIA
Chloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	1	950	960	1000	380	380	380	380	380	380	380
Chloroethene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	40	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	3400	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	6	7	7300	7500	7700	1100	1100	1100	1100	1100	1100	1100
1,1-Dichloroethane	20	NE	690	710	720	180	180	180	180	180	180	180
Total 1,2-Dichloroethane	16	NE	1100	1100	1100	250	250	250	250	250	250	250
Chloroform	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	110	110	110	110	110	110	110
1,1,1-Trichloroethane	200	200	880	870	930	42	42	42	42	42	42	42
Carbon tetrachloride	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,3-dichloropropane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethane	5	5	1200	1200	1200	75	75	75	75	75	75	75
Dibromochloromethane	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	100	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropane	87	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethane	4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	.7	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	280	ND	ND	ND	ND	ND	ND	ND
Acetone	NE	NE	15000	15000	16000	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l

MW = Monitoring Well
 EA = Extraction Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 LIA = First laboratory duplicate analysis
 LIB = Second laboratory duplicate analysis

Analytical data for EA-63 and EA-69 appear under MW-63 and MW-69

RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
 NE = Not established

TABLE 1-45. (continued)

Parameter	DOES	U.S. EPA	Action	Priority	EA-73	EA-73	EA-73	EA-83	EA-84	EA-85	EA-86	EA-87	EA-51	EA-53	EA-55
			Level	MOI					WELL NUMBER						
Ground Water Zone															
Date Sampled					07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88	07/01/88
Sampled By					RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed					07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88	07/15/88
Lab					SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis					FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA
Lab Analysis					LDA	LDA	LDA	LDA	LDA	LDA	LDA	LDA	LDA	LDA	LDA
Carbon disulfide	NE	NE			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Butanone	NE	NE			3400	3400	3500	3500	3500	3500	3500	3500	3500	3500	3500
Vinyl acetate	NE	NE			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Butanone	NE	NE			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Methyl-2-pentanone	NE	NE			3100	3100	3500	3500	3500	3500	3500	3500	3500	3500	3500
Styrene	NE	NE			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total Nylons	NE	NE			NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

ALL UNITS ARE ug/l
 M4 = Monitoring Well
 EA = Extraction Well
 FDA = First field duplicate analysis
 FDB = Second field duplicate analysis
 LDA = First laboratory duplicate analysis
 LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento
 ND = Nothing detected
 NR = Not reported
 NE = Not established

TABLE 1-45. (continued)

Parameter	DOES	U.S. EPA Action Level	Primary MCL	WELL NUMBER			
				MW-55	MW-56	MW-72	
Ground Water Zone							
Date Sampled				07/11/88	07/07/88	07/21/88	
Sampled By				RADIAN	RADIAN	RADIAN	
Date Analyzed				07/16/88	07/16/88	08/01/88	
Lab				SAC	SAC	SAC	
Field Analysis				FTB			
Lab Analysis							
Chloroethane	NE	NE	NE	ND	ND	ND	ND
Bromoethane	NE	NE	NE	ND	ND	ND	ND
Vinyl chloride	2	1	ND	ND	ND	ND	ND
Chloroethene	NE	NE	NE	ND	ND	ND	ND
Methylene chloride	40	NE	NE	ND	ND	ND	ND
Trichloroethene	3400	NE	NE	ND	ND	ND	ND
1,1-Dichloroethane	6	7	43	ND	ND	660	660
1,1-Dichloroethane	20	NE	22	ND	ND	83	83
Total 1,2-Dichloroethane	16	NE	22	ND	ND	ND	ND
Chloroform	100	100	ND	ND	ND	140	140
1,2-Dichloroethane	1	5	ND	ND	ND	32	32
1,1,1-Trichloroethane	200	200	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	ND	ND	ND	ND	ND
Bromochloroethane	100	100	ND	ND	ND	ND	ND
1,2-Dichloroethane	10	NE	ND	ND	ND	ND	ND
Trime-1,3-dichloropropene	NE	NE	ND	ND	ND	1100	1100
Trichloroethene	5	5	15	ND	ND	ND	ND
Dibromochloroethane	100	100	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	100	NE	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	87	NE	ND	ND	ND	ND	ND
2-Chloroethoxyvinyl ether	NE	NE	ND	ND	ND	ND	ND
Bromoforn	100	100	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	NE	ND	ND	ND	ND	ND
Tetrachloroethane	4	NE	ND	ND	ND	ND	ND
Chlorobenzene	30	NE	ND	ND	ND	ND	ND
Benzene	.7	5	ND	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND	ND
Axetone	NE	NE	ND	ND	ND	ND	ND
Carbon disulfide	NE	NE	ND	ND	ND	ND	ND
2-Butanone	NE	NE	ND	ND	ND	ND	ND
Vinyl acetate	NE	NE	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l
 MW = Monitoring Well
 FTB = Second field duplicate analysis
 ND = Nothing detected
 NA = Not analyzed
 NE = Not established
 RADIAN = Radian Corporation, Sacramento
 CCS = Cantrule Environmental Services
 SAC = Radian Analytical Services, Sacramento

TABLE 1-45. (continued)

Parameter	DHS Action Level	U.S. EPA Priority ML	M4-55	M4-56	M4-58	M4-72	WELL NUMBER
Ground Water Zone			MIDDLE	MIDDLE	DEEP	MIDDLE	
Date Sampled			07/11/88	07/11/88	07/07/88	07/21/88	
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	
Date Analyzed			07/16/88	07/23/88	07/16/88	08/01/88	
Lab			SAC	CES	SAC	SAC	
Field Analysis			FTB				
Lab Analysis							
2-Hexene	NE	NE	ND	NA	ND	ND	
4-Methyl-2-pentene	NE	NE	ND	NA	ND	ND	
Styrene	NE	NE	ND	NA	ND	ND	
Total Nylons	NE	NE	NR	NA	NR	ND	
ALL UNITS ARE ug/l							
M4 - Monitoring Well							
FTB - Second field duplicate analysis							
				RADIAN = Radian Corporation, Sacramento			ND = Nothing detected
				CES = Granite Environmental Services			NR = Not reported
				SAC = Radian Analytical Services, Sacramento			NA = Not analyzed
							NE = Not established

TABLE 1-46. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 625 COMPOUNDS
FOR AREA D AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOHS Action Level	U.S. EPA Primary MCL	WELL NUMBER													
			MA-51	MA-53	MA-55	MIDDLE	MIDDLE	MA-55	MA-56	MA-72	MA-91	SHALLOW				
Ground Water Zone																
Date Sampled			07/07/88	07/05/88	07/11/88	07/11/88	07/11/88	07/11/88	07/07/88	07/11/88	07/20/88	07/21/88	07/21/88	07/21/88	SHALLOW	
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	SHALLOW	
Date Analyzed			07/26/88	07/21/88	07/25/88	07/25/88	07/25/88	07/25/88	07/26/88	08/11/88	08/11/88	08/11/88	08/11/88	08/11/88	SHALLOW	
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SHALLOW	
Field Analysis																
Lab Analysis																
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,4-Dichlorobenzene	NE	750	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Naphthalene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1,2,4-Trichlorobenzene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Hexachlorobenzene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Bis(2-chloroethyl) ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
2-Chloronaphthalene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
3,3'-Dichlorobenzidine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
2,4-Dinitrotoluenes	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
2,6-Dinitrotoluenes	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Fluoranthene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
4-Chlorophenyl phenylether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
N-nitrosodimethylamine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
N-nitrosodi-n-propylamine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Bis(2-ethylhexyl)phthalate	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Di-n-butyl phthalate	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Di-n-octyl phthalate	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Diallyl phthalate	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Dimethyl phthalate	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Benzo(a)anthracene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Benzo(a)pyrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Benzo(k)fluoranthene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Chrysene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Acenaphthylene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Anthracene	(LOQ)0.7	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Bis(2-chloroethoxy)methane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Hexachlorocyclopentadiene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
Hexachlorocyclopentadiene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	

ALL UNITS ARE ug/l
MA = Monitoring Well
FTA = First field duplicate analysis
FTB = Second field duplicate analysis

RADIAN = Radiant Corporation, Sacramento
CES = Canine Environmental Services
SAC = Radiant Analytical Services, Sacramento
NO = Nothing detected
NA = Not analyzed
LOQ = Limit of quantitation
NE = Not established

TABLE 1-46. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER									
			M4-51	M4-53	M4-55	M4-55	M4-55	M4-55	M4-55	M4-72	M4-91	M4-92
Ground Water Zone			DEEP	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	DEEP	MIDDLE	SHALLOW
Date Sampled			07/07/88	07/05/88	07/11/88	07/11/88	07/11/88	07/11/88	07/11/88	07/07/88	07/21/88	07/21/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/26/88	07/21/88	07/25/88	07/25/88	07/25/88	07/25/88	07/25/88	07/26/88	08/11/88	08/11/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis												
Lab Analysis			FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA	FDA
Leptobenzene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Naphthalene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Nitrobenzene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Phenanthrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dibenz(a,h)anthracene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Indeno(1,2,3-cd)pyrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Pyrene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4,6-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4-Dichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4-Dimethylphenol	400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4-Dinitrophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Para-nitrophenol	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Phenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
N-nitrosodiphenylamine	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzidine	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenylether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bis(2-chloroethoxy)-ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bis(o,g,h,i)phenylene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Fluorene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Chloro-3-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4,6-Dinitro-2-methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Aniline	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Methylphenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzoic acid	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4-Chloroaniline	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Methylnaphthalene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2,4,5-Trichlorophenol	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

NE = Nothing detected
 NA = Not analyzed
 NE = Not established

RADIAN = Radian Corporation, Sacramento
 CES = Central Environmental Services
 SAC = Radian Analytical Services, Sacramento

FW = First field duplicate analysis
 FTB = Second field duplicate analysis

TABLE 1-46. (continued)

Parameter	DDES Action Level	U.S. EPA Priority MCL	WELL NUMBER									
			M4-51	M4-53	M4-55	M4-55	M4-56	M4-72	M4-91	M4-92		
Ground Water Zone												
Date Sampled			DEEP	MIDDLE	MIDDLE	MIDDLE	MIDDLE	DEEP	MIDDLE	SHALLOW	SHALLOW	
Sampled By			07/07/88	07/05/88	07/11/88	07/11/88	07/11/88	07/07/88	07/21/88	07/20/88	07/21/88	
Date Analyzed			RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	RADIUM	
Lab			07/26/88	07/21/88	07/25/88	07/25/88	07/25/88	07/26/88	08/11/88	08/11/88	08/11/88	
Field Analysis			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	
Lab Analysis					FDA	FDA	FDS					
2-Nitroaniline	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3-Nitroaniline	NE	NE	ND	ND	ND	ND	NA	ND	ND	ND	ND	
Dibenzofuran	NE	NE	ND	ND	ND	ND	NA	ND	ND	ND	ND	
4-Nitroaniline	NE	NE	ND	ND	ND	ND	NA	ND	ND	ND	ND	
Benzo(b)fluoranthene	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	

ALL UNITS ARE ug/l	
M4 = Monitoring Well	
FDA = First field duplicate analysis	
FDS = Second field duplicate analysis	
RADIUM = Radion Corporation, Sacramento	ND = Nothing detected
CES = Cerulus Environmental Services	NA = Not analyzed
SAC = Radion Analytical Services, Sacramento	NE = Not established

ALL UNITS ARE ug/l

M4 - Monitoring Well

FDA - First field duplicate analysis

FDS - Second field duplicate analysis

RADIUM - Radian Corporation, Sacramento

CES - Canville Environmental Services

SAC - Radian Analytical Services, Sacramento

ND - Nothing detected

NA - Not analyzed

NE - Not established

TABLE 1-47. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS FOR AREA D AND ADJACENT ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MOBILE/AN APB

Parameter	DCES Action Level	U.S. EPA Primary MCL	M4-10	M4-11	M4-12	M4-12	M4-14	M4-14	M4-99	M4-105
Ground Water Zone			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	DEEP
Date Sampled			07/22/88	07/25/88	07/26/88	07/26/88	07/22/88	07/22/88	07/08/88	07/19/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed										
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis										
Lab Analysis										
Antimony	NE		ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	NE	0.050	ND	ND	ND	ND	ND	ND	ND	ND
Barium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	NE	0.010	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	NE	0.050	ND	0.012	ND	ND	ND	ND	ND	0.010
Copper	NE	NE	ND	0.012	ND	ND	ND	ND	ND	ND
Lead	NE	0.050	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	NE	0.002	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	NE	0.11	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	NE	0.010	ND	ND	ND	ND	ND	ND	ND	ND
Silver	NE	0.050	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	NE	NE	0.060	0.004	0.007	0.005	0.005	0.003	0.004	0.004
Fluoride	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Chloride	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Carbonate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Iron	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Bicarbonate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Sulfate	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Barium	NE	1.0	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Total Alkalinity	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate	NE	45	ND	ND	ND	ND	ND	ND	ND	ND
Total Dissolved Solids	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE mg/l
M4 = Monitoring Well
LDA = First Laboratory duplicate analysis
LDB = Second Laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
NE = Not established

TABLE 1-48. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 846010 COMPLIANCE
FOR AREA D AND ADJACENT ON-BASE AREAS, COLUMBIAN SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCCELJAN AFB

Parameter	DHS	U.S. EPA Action Level	Primary M4-59 MCL	M4-59	WELL NUMBER
Ground Water Zone					
Date Sampled					
Sampled By					
Date Analyzed					
Lab					
Field Analysis					
Lab Analysis					
Total cyanide	0.200	0.200	ND	ND	
Ammonia cyanide	0.200	0.200	ND	ND	
ALL UNITS ARE mg/l					
M4 = Monitoring Well					
LDA = First laboratory duplicate analysis					
LDB = Second laboratory duplicate analysis					
RADIAN = Radian Corporation, Sacramento					
SAC = Radian Analytical Services, Sacramento					
ND = Nothing detected					

TABLE 1-49. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MACLELLAN AFB

Parameter	DURS Action Level	U.S. EPA Priority MCL	M4-74	M4-76	M4-1001	M4-1002	M4-1003	M4-1004	M4-1005	M4-1005	M4-1005	M4-1005	M4-1009
Ground Water Zone			MIDDLE	MIDDLE	DEEP	SEAWALL	MIDDLE	SEAWALL	SEAWALL	SEAWALL	SEAWALL	SEAWALL	SEAWALL
Date Sampled			07/26/88	07/21/88	07/22/88	07/19/88	07/22/88	07/22/88	07/19/88	07/19/88	07/19/88	07/19/88	07/26/88
Sampled By			RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT
Date Analyzed			07/27/88	07/25/88	07/26/88	07/21/88	07/26/88	07/26/88	07/21/88	07/21/88	07/21/88	07/21/88	07/27/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis													
Lab Analysis													
Chloroethene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethene	6	7	1.2P	4.8C	NO	0.66C	NO	1.2C	3.2P	4.8P	3.2C	3.2C	NO
1,1,1-Trichloroethene	20	NE	0.21P	1.4C	NO	NO	NO	1.8C	7.4P	8.4P	5.9P	NO	NO
Total 1,2-Dichloroethene	16	NE	0.42P	1.4C	NO	NO	NO	0.76C	4.8P	4.8P	3.4C	NO	NO
Chloroform	100	100	NO	NO	NO	NO	NO	NO	1.0P	0.80P	1.0C	2.1C	NO
1,2-Dichloroethane	200	200	0.21P	NO	NO	NO	NO	NO	NO	NO	5.1C	1.1C	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromodichloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloropropane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	5	5	4.8P	NO	NO	0.29C	NO	2.2C	9.4P	1.4P	9.7C	9.1C	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethylvinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LOQ)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FA = First field duplicate analysis

PB = Second field duplicate analysis

LA = First laboratory duplicate analysis

LB = Second laboratory duplicate analysis

RADIANT = Radiant Corporation, Sacramento

CES = Central Environmental Services

SAC = Radiant Analytical Services, Sacramento

NO = Nothing detected

C = Analysis confirmed in second column analysis

LOQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-49. (continued)

Parameter	DCHS		U.S. EPA		WELL NUMBER							
	Action	Level	Primary	MCL	M4-1010	M4-1019	M4-1026	M4-1027	M4-1028	M4-1041	M4-1042	M4-1043
Ground Water Zone					MIDDLE	SHALLOW	SHALLOW	MIDDLE	DEEP	SHALLOW	MIDDLE	DEEP
Date Sampled					07/19/88	07/11/88	07/13/88	07/13/88	07/13/88	07/15/88	07/15/88	07/15/88
Sampled By					RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT	RADIANT
Date Analyzed					07/21/88	07/12/88	07/15/88	07/15/88	07/15/88	07/18/88	07/18/88	07/18/88
Lab					SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis												
Lab Analysis												
Chloroethane	NE	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethane	NE	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	1	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NE	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	40	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethane	3400	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	6	7	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	20	NE	NE	NE	ND	1.8C	ND	ND	ND	ND	ND	ND
Total 1,2-Dichloroethane	16	NE	NE	NE	ND	0.60C	ND	ND	ND	ND	ND	ND
Chloroform	100	100	NE	NE	ND	0.16C	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloroethane	100	100	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,3-dichloropropene	NE	NE	NE	NE	ND	1.3C	ND	ND	ND	ND	ND	ND
Trichloroethane	5	5	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloroethane	100	100	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	100	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	97	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	NE	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Bromoforn	100	100	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	NE	NE	NE	ND	0.50C	ND	ND	ND	ND	ND	ND
Tetrachloroethane	4	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(100)0.5	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND

ALL UNITS ARE ug/l
MW = Monitoring Well

RADIANT = Radiant Corporation, Sacramento
SAC = Radiant Analytical Services, Sacramento
ND = Nothing detected
C = Analysis confirmed in second column analysis
LOQ = Limit of quantitation
NE = Not established

TABLE 1-50. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DHS Action Level	U.S. EPA Priority MCL	WELL NUMBER									
			M4-74	M4-76	M4-1001	M4-1002	M4-1003	M4-1004	M4-1005	M4-1005	M4-1005	M4-1009
Ground Water Zone			MIDDLE	MIDDLE	DEEP	SHALLOW	MIDDLE	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
Date Sampled			07/26/88	07/21/88	07/22/88	07/19/88	07/22/88	07/22/88	07/19/88	07/19/88	07/19/88	07/26/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/27/88	07/25/88	07/26/88	07/21/88	07/26/88	07/26/88	07/21/88	07/21/88	07/29/88	07/27/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	CES	SAC
Field Analysis									FDA	FDA	FDA	
Lab Analysis									LDA	LDA	LDA	
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(100)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ethylbenzene	680	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	0.80P	NO	0.35P	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l

M4 = Monitoring Well

FDA = First field duplicate analysis

FDB = Second field duplicate analysis

LDA = First laboratory duplicate analysis

LDB = Second laboratory duplicate analysis

RADIAN = Radian Corporation, Sacramento

CES = Ceres Environmental Services

SAC = Radian Analytical Services, Sacramento

NO = Nothing detected

LDQ = Limit of quantitation

P or PC = Identity previously confirmed

NE = Not established

TABLE 1-50. (continued)

Parameter	DOSS Action Level	U.S. EPA Priority MCL	WELL NUMBER					
			M4-1010	M4-1019	M4-1026	M4-1027	M4-1028	M4-1041
Ground Water Zone								
Date Sampled			MIDDLE 07/19/88	SHALLOW 07/11/88	SHALLOW 07/13/88	MIDDLE 07/13/88	DEEP 07/13/88	MIDDLE 07/15/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/21/88	07/12/88	07/15/88	07/15/88	07/15/88	07/18/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis								
Lab Analysis								
Chlorobenzene	30	NE	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	130	NE	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	(LOD)0.5	NE	ND	ND	ND	ND	ND	ND
Benzene	.7	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND	ND	ND

 ALL UNITS ARE ug/l
 M4 = Monitoring Well

 RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento
 ND = Nothing detected
 LOQ = Limit of quantitation
 NE = Not established

TABLE 1-51. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 604 COMPOUNDS
FOR THE NICHOLSON AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOBS	U.S. EPA Action Level	Primary MCL	M4-74	M4-76	WELL NUMBER
Ground Water Zone						
Date Sampled				MIDDLE	MIDDLE	
Sampled By				07/26/88	07/21/88	
Date Analyzed				RADIAN	RADIAN	
Lab				08/02/88	08/01/88	
Field Analysis				SAC	SAC	
Lab Analysis						
2,4,6-Trichlorophenol	NE	NE	NE	ND	ND	
2-Chlorophenol	NE	NE	NE	ND	ND	
2,4-Dichlorophenol	NE	NE	NE	ND	ND	
2,4-Dimethylphenol	400	NE	NE	ND	ND	
2-Nitrophenol	NE	NE	NE	ND	ND	
4-Nitrophenol	NE	NE	NE	ND	ND	
2,4-Dinitrophenol	NE	NE	NE	ND	ND	
Peracetylphenol	30	NE	NE	ND	ND	
Phenol	NE	NE	NE	0.36C	0.86	
4-Chloro-3-methylphenol	NE	NE	NE	ND	ND	
4,6-Dinitro-2-methylphenol	NE	NE	NE	ND	ND	

ALL UNITS ARE ug/l

M4 - Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
C = Analysis confirmed in second column analysis
NE = Not established

TABLE 1-52. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA CLP METHOD 604 COMPOUNDS FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES U.S. EPA		WELL NUMBER	
	Action Level	Primary MCL	M4-1004	M4-1009
Ground Water Zone			SHALLOW	SHALLOW
Date Sampled			07/22/88	07/26/88
Sampled by			RADIANT	RADIANT
Date Analyzed			08/02/88	08/03/88
Lab			SAC	SAC
Field Analysis				
Lab Analysis				
Chloroethene	NE	NE	NO	NO
Bromoethene	NE	NE	NO	NO
Vinyl chloride	2	1	NO	NO
Chloroethane	NE	NE	NO	NO
Methylene chloride	40	NE	NO	NO
Trichloroethene	3400	NE	NA	NO
1,1-Dichloroethene	6	7	13	NO
1,1-Dichloroethane	20	NE	NO	NO
Total 1,2-Dichloroethene	16	NE	NO	NO
Chloroform	100	100	NO	NO
1,2-Dichloroethane	1	5	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO
Carbon tetrachloride	5	5	NO	NO
Bromochloroethene	100	100	NO	NO
1,2-Dichloroethane	10	NE	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO
Trichloroethene	5	5	2.2	NO
Dibromochloroethene	100	100	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO
2-Chloroethylvinyl ether	NE	NE	NA	NO
Bromodform	100	100	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO
Tetrachloroethene	4	NE	NO	NO
Chlorobenzene	30	NE	NO	NO
Benzene	.7	5	NO	NO
Ethylbenzene	680	NE	NO	NO
Toluene	100	NE	NO	NO
Acetone	NE	NE	9.18	NO
Carbon disulfide	NE	NE	NO	NO
2-Butanone	NE	NE	NO	NO

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIANT = Radiant Corporation, Sacramento
SAC = Radiant Analytical Services, Sacramento

ND = Nothing detected
NA = Not analyzed
B = Compound detected in Laboratory black - not edited
NE = Not established

TABLE 1-52. (continued)

Parameter	DOES Action Level	U.S. EPA Priority ML	M4-1004	M4-1009	M4-1019	WELL NUMBER
Ground Water Zone						
Date Sampled			SHALLOW 07/22/88	SHALLOW 07/26/88	SHALLOW 07/11/88	
Sampled By			RADIAN	RADIAN	RADIAN	
Date Analyzed			08/02/88	08/03/88	07/16/88	
Lab			SAC	SAC	SAC	
Field Analysis						
Lab Analysis						
Vinyl acetate	NE	NE	ND	ND	ND	
2-Hexene	NE	NE	ND	ND	ND	
4-Methyl-2-pentene	NE	NE	ND	ND	ND	
Styrene	NE	NE	ND	ND	ND	
Total Xylenes	NE	NE	ND	ND	NR	
ALL UNITS ARE ug/l						
M4 = Monitoring Well						
RADIAN = Radian Corporation, Sacramento						
SAC = Radian Analytical Services, Sacramento						
ND = Nothing detected						
NR = Not reported						
NE = Not established						

TABLE 1-53. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 625 COMPOUNDS
FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	OCES Action Level	U.S. EPA Primary MCL	M4-1004	M4-1009	WELL NUMBER
Ground Water Zone			SEWALLON	SEWALLON	
Date Sampled			07/22/88	07/26/88	
Sampled By			RADIAN	RADIAN	
Date Analyzed			08/10/88	08/11/88	
Lab			SAC	SAC	
Field Analysis					
Lab Analysis					
1,3-Dichlorobenzene	130	NE	ND	ND	
1,2-Dichlorobenzene	130	NE	ND	ND	
1,4-Dichlorobenzene	NE	750	ND	ND	
Aroclor 1248	NE	NE	ND	ND	
1,2,4-Trichlorobenzene	NE	NE	ND	ND	
Benzochlorobenzene	NE	NE	ND	ND	
Benzochlorobenzene	NE	NE	ND	ND	
Bis(2-chloroethyl) ether	NE	NE	ND	ND	
2-Chlorophenol	NE	NE	ND	ND	
3,3'-Dichlorobenzidine	NE	NE	ND	ND	
2,4-Dinitrochlorobenzene	NE	NE	ND	ND	
2,6-Dinitrochlorobenzene	NE	NE	ND	ND	
Fluoranthene	NE	NE	ND	ND	
4-Chlorophenyl phenyl ether	NE	NE	ND	ND	
N-nitrosodimethylamine	NE	NE	NA	NA	
N-nitrosodi-n-propylamine	NE	NE	ND	ND	
Bis(2-ethylhexyl) phthalate	NE	NE	ND	ND	
Bis(2-ethylhexyl) phthalate	NE	NE	ND	ND	
Di-n-butyl phthalate	NE	NE	ND	ND	
Di-n-octyl phthalate	NE	NE	ND	ND	
Diethyl phthalate	NE	NE	ND	ND	
Diethyl phthalate	NE	NE	ND	ND	
Benz(a)anthracene	NE	NE	ND	ND	
Benz(a)pyrene	NE	NE	ND	ND	
Benz(b)fluoranthene	NE	NE	ND	ND	
Chrysene	NE	NE	ND	ND	
Acenaphthylene	NE	NE	ND	ND	
Anthracene	(100)0.7	NE	ND	ND	
Bis(2-chloroethoxy)methane	NE	NE	ND	ND	
Benzochlorobenzene	NE	NE	ND	ND	
Benzochlorocyclopentadiene	NE	NE	ND	ND	

ALL UNITS ARE ug/l

M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
NA = Not analyzed
LOQ = Limit of quantitation
NE = Not established

TABLE 1-53. (continued)

Parameter	DHS Action Level	U.S. EPA Primary MCL	M4-1004	M4-1009	WELL NUMBER
Ground Water Zone			SHALLOW	SHALLOW	
Date Sampled			07/22/88	07/26/88	
Sampled By			RADIAN	RADIAN	
Date Analyzed			08/10/88	08/11/88	
Lab			SAC	SAC	
Field Analysis					
Lab Analysis					
Isophenols	NE	NE	NO	NO	
Naphthalene	NE	NE	NO	NO	
Nitrobenzene	NE	NE	NO	NO	
Phenanthrene	NE	NE	NO	NO	
Dibenz(a,h)anthracene	NE	NE	NO	NO	
Indeno(1,2,3-cd)pyrene	NE	NE	NO	NO	
Pyrene	NE	NE	NO	NO	
2,4,6-Trichlorophenol	NE	NE	NO	NO	
2-Chlorophenol	NE	NE	NO	NO	
2,4-Dichlorophenol	NE	NE	NO	NO	
2,4-Dimethylphenol	400	NE	NO	NO	
2-Nitrophenol	NE	NE	NO	NO	
4-Nitrophenol	NE	NE	NO	NO	
2,4-Dinitrophenol	NE	NE	NO	NO	
Para-chlorophenol	30	NE	NO	NO	
Phenol	NE	NE	NO	NO	
4-Nitroanisole/phenylamine	NE	NE	NO	NO	
Benzidine	NE	NE	NO	NO	
4-Bromophenyl phenylether	NE	NE	NO	NO	
Bis(2-chloroisopropyl)ether	NE	NE	NO	NO	
Bis(4-chlorophenyl)ether	NE	NE	NO	NO	
Fluorene	NE	NE	NO	NO	
4-Chloro-3-methylphenol	NE	NE	NO	NO	
4,6-Dinitro-2-methylphenol	NE	NE	NO	NO	
Acetone	NE	NE	NO	NO	
Benzyl alcohol	NE	NE	NO	NO	
2-Methylphenol	NE	NE	NO	NO	
4-Methylphenol	NE	NE	NO	NO	
Benzoic acid	NE	NE	NO	NO	
4-Chloroaniline	NE	NE	NO	NO	
2-Methylnaphthalene	NE	NE	NO	NO	
2,4,5-Trichlorophenol	NE	NE	NO	NO	

 ND = Nothing detected
 NA = Not analyzed
 NE = Not established

 RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento

 ALL UNITS ARE ug/l
 M4 = Monitoring Well

TABLE 1-53. (continued)

Parameter	DOHS		U.S. EPA		WELL NUMBER	
	Action Level	Primary	M4-1004	M4-1009		
Ground Water Zone			SHALLOW	SHALLOW		
Date Sampled			07/22/88	07/26/88		
Sampled By			RADIAN	RADIAN		
Date Analyzed			08/10/88	08/11/88		
Lab			SAC	SAC		
Field Analysis						
Lab Analysis						
2-Nitroaniline	NE	NE	NO	NO		
3-Nitroaniline	NE	NE	NO	NO		
Dibenzofuran	NE	NE	NO	NO		
4-Nitroaniline	NE	NE	NO	NO		
Benz(a)fluoranthene	NE	NE	NO	NO		

ALL UNITS ARE ug/l
M4 = Monitoring Well
RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
NO = Nothing detected
NE = Not established

TABLE 1-5A. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS
FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MOBILELAIN AFB

Parameter	DOBS	U.S.EPA	Action	Primary	M4-1005	M4-1005	M4-1005	WELL NUMBER
			Level	MCL				
Ground Water Zone					SHALLOW	SHALLOW	SHALLOW	SHALLOW
Date Sampled					07/19/88	07/19/88	07/26/88	
Sampled By					RADIAN	RADIAN	RADIAN	
Date Analyzed								
Lab					SAC	SAC	SAC	
Field Analysis					FDA	FTB		
Lab Analysis								
Antimony	NE	NE			NO	NO	NO	NO
Arsenic	NE	0.050			NO	NO	NO	NO
Beryllium	NE	NO			NO	NO	NO	NO
Cadmium	NE	0.010			NO	NO	NO	NO
Chromium	NE	0.050			0.009	0.015	NO	NO
Copper	NE	0.050			0.007	NO	NO	NO
Lead	NE	0.050			NO	NO	NO	NO
Mercury	NE	0.002			NO	NO	NO	NO
Nickel	NE	0.010			0.061	0.056	NO	NO
Selenium	NE	0.050			NO	NO	NO	NO
Silver	NE	NO			NO	NO	NO	NO
Thallium	NE	NO			NO	NO	NO	NO
Zinc	NE	0.004			0.009	NO	0.004	NO
Fluoride	NE	NO			NO	NA	NO	NO
Calcium	NE	NO			NO	NA	NO	NO
Chloride	NE	NO			NO	NA	NO	NO
Carbonate	NE	NO			NO	NA	NO	NO
Iron	NE	NO			NO	NA	NO	NO
Bicarbonate	NE	NO			NO	NA	NO	NO
Magnesium	NE	NO			NO	NA	NO	NO
Sodium	NE	NO			NO	NA	NO	NO
Sulfate	NE	NO			NO	NA	NO	NO
Barium	NE	1.0			NO	NA	NO	NO
Manganese	NE	NO			NO	NA	NO	NO
Total Alkalinity	NE	NO			NO	NA	NO	NO
Nitrate	NE	45			NO	NA	NO	NO
Total Dissolved Solids	NE	NO			NO	NA	NO	NO

ALL UNITS ARE mg/l
 MW = Monitoring Well
 FDA = First field duplicate analysis
 FTB = Second field duplicate analysis
 RADIAN = Radian Corporation, Sacramento
 OSS = Caronde Environmental Services
 SAC = Radian Analytical Services, Sacramento
 NO = Nothing detected
 NA = Not analyzed
 NE = Not established

TABLE 1-55. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 8210 COMPOUNDS FOR THE NICHOLS AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MACLELLAN AFB

Parameter	DBS Action Level	U.S. EPA Priority	MA-1001	MA-1003	MA-1004	WELL NUMBER
Ground Water Zone						
Date Sampled		DEEP	07/22/88	MIDDLE	SHALLOW	
Sampled By		RADIAN	RADIAN	RADIAN	RADIAN	
Date Analyzed		08/05/88	08/05/88	08/05/88	08/05/88	
Lab		SAC	SAC	SAC	SAC	
Field Analysis						
Lab Analysis						
Total cyanide	0.200	0.200	ND	ND	ND	
Asorbable cyanide	0.200	0.200	ND	ND	ND	

ALL UNITS ARE mg/l
MW = Monitoring Well

MA-1001 = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
ND = Nothing detected

TABLE 1-56. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS
FOR OTHER ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MOBILELAW ARE

Parameter	DOS Action Level	U.S. EPA Primary MCL	M4-170	M4-180	M4-240	M4-250	M4-405	M4-100	M4-101	M4-102	M4-103	M4-106	M4-116
Ground Water Zone			MIDDLE	MIDDLE	MIDDLE	MIDDLE	SHALLOW	MIDDLE	SHALLOW	SHALLOW	MIDDLE	SHALLOW	SHALLOW
Date Sampled			07/21/88	07/18/88	07/12/88	07/12/88	07/25/88	07/19/88	07/19/88	07/12/88	07/12/88	07/13/88	07/06/88
Sampled By			RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed			07/25/88	07/19/88	07/14/88	07/14/88	07/26/88	07/21/88	07/21/88	07/14/88	07/14/88	07/14/88	07/07/88
Lab			SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis													
Lab Analysis													
Chloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromoethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Vinyl chloride	2	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroethene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Methylene chloride	40	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	3400	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	6	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1-Dichloroethane	20	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total 1,2-Dichloroethane	16	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chloroform	100	100	NO	NO	NO	NO	0.12P	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	1	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,1-Trichloroethane	200	200	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Carbon tetrachloride	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bromodichloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichloroethane	10	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trans-1,3-dichloropropene	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Trichloroethene	5	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Dibromochloroethane	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2-Trichloroethane	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
cis-1,3-Dichloropropene	87	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-Chloroethyl vinyl ether	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzonitrile	100	100	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,1,2,2-Tetrachloroethane	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Tetrachloroethane	4	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LOD)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

NO = Nothing detected
LOQ = Limit of quantitation
P or PC = Identity previously confirmed
NE = Not established

TABLE 1-57. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS
FOR OTHER ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCJELIAN AFB

Parameter	DOBS Action Level	U.S. EPA Priority MCL	WELL NUMBER	M4-170	M4-180	M4-240	M4-250	M4-405	M4-100	M4-101	M4-102	M4-103	M4-106	M4-116
Ground Water Zone				MIDDLE	MIDDLE	MIDDLE	MIDDLE	SHALLOW	MIDDLE	SHALLOW	SHALLOW	MIDDLE	SHALLOW	SHALLOW
Date Sampled				07/21/88	07/19/88	07/12/88	07/12/88	07/25/88	07/19/88	07/19/88	07/12/88	07/12/88	07/13/88	07/06/88
Sampled By				RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN	RADIAN
Date Analyzed				07/25/88	07/19/88	07/14/88	07/14/88	07/26/88	07/21/88	07/21/88	07/14/88	07/14/88	07/14/88	07/07/88
Lab				SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
Field Analysis														
Lab Analysis														
Chlorobenzene	30	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1,4-Dichlorobenzene	(LQ)0.5	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Benzene	.7	5	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ethylbenzene	680	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Toluene	100	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

ALL UNITS ARE ug/l
M4 - Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
NO = Nothing detected
LQ = Limit of quantization
NE = Not established

TABLE 1-58. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA CIP METHOD 624 COMPOUNDS FOR OTHER ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES Action Level	U.S. EPA Priority	M4-170	M4-170	M4-116	WELL NUMBER
		MCL				
Ground Water Zone			MIDDLE	MIDDLE	MIDDLE	SEWICH
Date Sampled			07/21/88	07/21/88	07/06/88	
Sampled By			RADIAN	RADIAN	RADIAN	
Date Analyzed			08/02/88	07/16/88		
Lab			SAC	SAC	SAC	
Field Analysis						
Lab Analysis			LDA	LDB		
Chloroethane	NE	NE	ND	ND	ND	ND
Bromoethane	NE	NE	ND	ND	ND	ND
Vinyl chloride	2	1	ND	ND	ND	ND
Chloroethene	NE	NE	ND	ND	ND	ND
Methylene chloride	40	NE	ND	ND	ND	ND
Trichloroethene	3400	NE	NA	NA	NA	NA
1,1-Dichloroethane	6	7	ND	ND	ND	ND
1,1-Dichloroethane	20	NE	ND	ND	ND	ND
Total 1,2-Dichloroethane	16	NE	ND	ND	ND	ND
Chloroform	100	100	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	ND	ND	ND	ND
Carbon tetrachloride	5	5	ND	ND	ND	ND
Bromochloroethane	100	100	ND	ND	ND	ND
1,2-Dichloropropane	10	NE	ND	ND	ND	ND
Trans-1,3-dichloropropane	NE	NE	ND	ND	ND	ND
Trichloroethane	5	5	ND	ND	ND	ND
Dibromochloroethane	100	100	ND	ND	ND	ND
1,1,2-Trichloroethane	100	NE	ND	ND	ND	ND
cis-1,3-Dichloropropane	87	NE	ND	ND	ND	ND
2-Chloroethylvinyl ether	NE	NE	NA	NA	NA	NA
Benzofuran	100	100	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	NE	ND	ND	ND	ND
Tetrachloroethane	4	NE	ND	ND	ND	ND
Chlorobenzene	30	NE	ND	ND	ND	ND
Benzene	7	5	ND	ND	ND	ND
Ethylbenzene	680	NE	ND	ND	ND	ND
Toluene	100	NE	ND	ND	ND	ND
Axetone	NE	NE	ND	ND	ND	ND
Carbon disulfide	NE	NE	ND	ND	ND	ND
2-Butanone	NE	NE	ND	ND	ND	ND
Vinyl acetate	NE	NE	ND	ND	ND	ND

ND = Nothing detected
NA = Not analyzed
NE = Not established

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ALL UNITS ARE ug/l
M4 = Monitoring Well
LDA = First Laboratory duplicate analysis
LDB = Second Laboratory duplicate analysis

TABLE 1-58. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	M4-17D	M4-17D	M4-116	WELL NUMBER
Ground Water Zone						
Date Sampled			MIDDLE	MIDDLE	SHALLOW	
Sampled By			07/21/88	07/21/88	07/06/88	
Date Analyzed			RADIAN	RADIAN	RADIAN	
Lab			08/02/88	08/02/88	07/16/88	
Field Analysis			SAC	SAC	SAC	
Lab Analysis			LDA	LDB		
2-Hexene	NE	NE	ND	ND	ND	
4-Methyl-2-pentene	NE	NE	ND	ND	ND	
Soyene	NE	NE	ND	ND	ND	
Total Nylons	NE	NE	ND	ND	NR	

ALL UNITS ARE ug/l

M4 - Monitoring Well

LDA - First laboratory duplicate analysis

LDB - Second laboratory duplicate analysis

RADIAN - Radian Corporation, Sacramento

SAC - Radian Analytical Services, Sacramento

ND - Nothing detected

NR - Not reported

NE - Not established

TABLE 1-59. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 625 COMPOUNDS
FOR OTHER ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOHS		U.S. EPA		WELL NUMBER
	Action Level	Primary MCL	Secondary MCL	Well ID	
Ground Water Zone				SHALLOW	
Date Sampled				07/06/88	
Sampled By				RADIAN	
Date Analyzed				07/21/88	
Lab				SAC	
Field Analysis					
Lab Analysis					
1,3-Dichlorobenzene	130	NE	NE	NO	
1,2-Dichlorobenzene	130	NE	NE	NO	
1,4-Dichlorobenzene	NE	750	NE	NO	
Aroclor 1248	NE	NE	NE	NO	
1,2,4-Trichlorobenzene	NE	NE	NE	NO	
Benzochlorobenzene	NE	NE	NE	NO	
Bis(2-chloroethyl) ether	NE	NE	NE	NO	
2-Chloronaphthalene	NE	NE	NE	NO	
3,3'-Dichlorobenzidine	NE	NE	NE	NO	
2,4-Dinitrochlorobenzene	NE	NE	NE	NO	
2,6-Dinitrochlorobenzene	NE	NE	NE	NO	
Fluoranthene	NE	NE	NE	NO	
4-Chlorophenyl phenyl ether	NE	NE	NE	NO	
4-Nitrochlorobenzene	NE	NE	NE	NA	
4-Nitrochlorobenzene	NE	NE	NE	NO	
Bis(2-ethylhexyl) phthalate	NE	NE	NE	NO	
Bis(2-ethylhexyl) phthalate	NE	NE	NE	NO	
Di-n-butyl phthalate	NE	NE	NE	NO	
Di-n-octyl phthalate	NE	NE	NE	NO	
Diethyl phthalate	NE	NE	NE	NO	
Dioctyl phthalate	NE	NE	NE	NO	
Benz(a)anthracene	NE	NE	NE	NO	
Benz(a)pyrene	NE	NE	NE	NO	
Benz(b)fluoranthene	NE	NE	NE	NO	
Chrysene	NE	NE	NE	NO	
Acenaphthylene	NE	NE	NE	NO	
Anthracene	(LOQ)0.7	NE	NE	NO	
Bis(2-chloroethoxy)methane	NE	NE	NE	NO	
Bis(2-chloroethyl) ether	NE	NE	NE	NO	
Bis(2-chloroethyl) ether	NE	NE	NE	NO	

ALL UNITS ARE ug/l
M = Monitoring Well
NO = Nothing detected
NA = Not analyzed
LOQ = Limit of quantitation
NE = Not established

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

TABLE 1-59. (continued)

Parameter	DOES Action Level	U.S. EPA Primary MCL	WELL NUMBER
Ground Water Zone			SHALLOW
Date Sampled			07/06/88
Sampled By			RADIAN
Date Analyzed			07/21/88
Lab			SAC
Field Analysis			
Lab Analysis			
Isophorone	NE	NE	ND
Naphthalene	NE	NE	ND
Nitrobenzene	NE	NE	ND
Phenanthrene	NE	NE	ND
Dibenz(a,h)anthracene	NE	NE	ND
Indeno(1,2,3-cd)pyrene	NE	NE	ND
Pyrene	NE	NE	ND
2,4,6-Trichlorophenol	NE	NE	ND
2-Chlorophenol	NE	NE	ND
2,4-Dichlorophenol	NE	NE	ND
2,4-Dimethylphenol	400	NE	ND
2-Nitrophenol	NE	NE	ND
4-Nitrophenol	NE	NE	ND
2,4-Dinitrophenol	NE	NE	ND
Pentachlorophenol	30	NE	ND
Phenol	NE	NE	ND
4-Nitroanisole/phenylamine	NE	NE	ND
Benzidine	NE	NE	NA
4-Bromophenyl phenylether	NE	NE	ND
Bis(2-chloroisopropyl)ether	NE	NE	ND
Bis(2,6-diisopropyl)phenyl ether	NE	NE	ND
Fluorene	NE	NE	ND
4-Chloro-3-methylphenol	NE	NE	ND
4,6-Dinitro-2-methylphenol	NE	NE	ND
Aniline	NE	NE	NA
Benzyl alcohol	NE	NE	ND
2-Methylphenol	NE	NE	ND
4-Methylphenol	NE	NE	ND
Benzoic acid	NE	NE	ND
4-Chloroaniline	NE	NE	ND
2-Methylnaphthalene	NE	NE	ND
2,4,5-Trichlorophenol	NE	NE	ND

ALL UNITS ARE ug/l

NA = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento

ND = Nothing detected
NA = Not analyzed
NE = Not established

TABLE 1-59. (continued)

Parameter	DEBS Action Level	U.S. EPA Primary MCL	M4-116	WELL NUMBER
Ground Water Zone			SWALION	
Data Sampled			07/06/88	
Sampled By			RADIAN	
Data Analyzed			07/21/88	
Lab			SAC	
Field Analysis				
Lab Analysis				
2-Nitroaniline	NE	NE	NO	
3-Nitroaniline	NE	NE	NO	
Dibenzofuran	NE	NE	NO	
4-Nitroaniline	NE	NE	NO	
Benzo(b)fluoranthene	NE	NE	NO	
ALL UNITS ARE ug/l				
M4 - Monitoring Well				
RADIAN - Radian Corporation, Sacramento				
SAC - Radian Analytical Services, Sacramento				
ND - Nothing detected				
NE - Not established				

TABLE 1-60. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS FOR OTHER ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DHS Action Level	U.S. EPA Priority	M4-250	M4-100	M4-102	M4-116	WELL NUMBER
Ground Water Zone							
Date Sampled			MIDDLE	MIDDLE	SHALLOW	SHALLOW	
Sampled By			07/12/88	07/19/88	07/12/88	07/06/88	
Date Analyzed			RADIAN	RADIAN	RADIAN	RADIAN	
Lab			SAC	SAC	SAC	SAC	
Field Analysis							
Lab Analysis							
Antimony	NE	NE	ND	ND	ND	ND	
Arsenic	NE	0.050	ND	ND	ND	ND	
Beryllium	NE	NE	ND	ND	ND	ND	
Calcium	NE	0.010	ND	ND	ND	ND	
Chromium	NE	0.050	0.009	0.013	ND	0.012	
Copper	NE	NE	ND	ND	ND	ND	
Lead	NE	0.050	ND	ND	ND	ND	
Mercury	NE	0.002	ND	ND	ND	ND	
Nickel	NE	NE	0.042	ND	ND	ND	
Selenium	NE	0.010	ND	ND	ND	ND	
Silver	NE	0.050	ND	ND	ND	ND	
Thallium	NE	NE	ND	ND	ND	ND	
Zinc	NE	NE	0.003	0.003	ND	ND	
Fluoride	NE	NE	ND	ND	ND	ND	
Calcium	NE	NE	ND	ND	ND	ND	
Chloride	NE	NE	ND	ND	ND	ND	
Carbonate	NE	NE	ND	ND	ND	ND	
Iron	NE	NE	ND	ND	ND	ND	
Bicarbonate	NE	NE	ND	ND	ND	ND	
Magnesium	NE	NE	ND	ND	ND	ND	
Sodium	NE	NE	ND	ND	ND	ND	
Sulfate	NE	NE	ND	ND	ND	ND	
Barium	NE	1.0	ND	ND	ND	ND	
Manganese	NE	NE	ND	ND	ND	ND	
Total Alkalinity	NE	NE	ND	ND	ND	ND	
Nitrate	NE	45	ND	ND	ND	ND	
Total Dissolved Solids	NE	NE	ND	ND	ND	ND	

ALL UNITS ARE mg/l
 M4 = Monitoring Well
 RADIAN = Radlun Corporation, Sacramento
 SAC = Radlun Analytical Services, Sacramento
 ND = Nothing detected
 NE = Not established

TABLE 1-61. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHYL MERCURY CONTROLS
FOR OTHER ON-BASE AREAS, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOBS Action Level	U.S. EPA Primary MCL	M4-49S	M4-49S	M4-106	M4-116	WELL NUMBER
Ground Water Zone							
Date Sampled			SEWALLON	SEWALLON	SEWALLON	SEWALLON	
Sampled By			07/25/88	07/25/88	07/13/88	07/06/88	
Date Analyzed			RADIAN	RADIAN	RADIAN	RADIAN	
Lab			08/05/88	08/05/88	07/27/88	07/13/88	
Field Analysis			SAC	SAC	SAC	SAC	
Lab Analysis			LDA	LDB			
Total cyanide	0.200	0.200	ND	ND	ND	ND	
Ammonia cyanide	0.200	0.200	ND	ND	ND	ND	
ALL UNITS ARE mg/l							
M4 - Monitoring Well							
LDA - First Laboratory duplicate analysis							
LDB - Second Laboratory duplicate analysis							
RADIAN - Radian Corporation, Sacramento							
SAC - Radian Analytical Services, Sacramento							
ND - Nothing detected							

TABLE 1-62. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 601 COMPOUNDS FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, JULY THROUGH SEPTEMBER 1988, MCCELLAN AFB

Parameter	DDES	U.S. EPA	Action	Primary	M4-1012	M4-1040	WELL NUMBER
			Level	ML			
Ground Water Zone					SHALLOW	DEEP	
Date Sampled					07/26/88	07/20/88	
Sampled By					RADIAN	RADIAN	
Date Analyzed					07/27/88	07/22/88	
Lab					SAC	SAC	
Field Analysis							
Lab Analysis							
Chloroethers	NE	NE	NE	NE	ND	ND	
Bromoethers	NE	NE	NE	NE	ND	ND	
Vinyl chloride	2	1	ND	ND	ND	ND	
Chloroethers	NE	NE	NE	NE	ND	ND	
Methylene chloride	40	NE	NE	NE	ND	ND	
Trichloroethylene	3400	NE	NE	NE	ND	ND	
1,1-Dichloroethers	6	7	NE	NE	ND	ND	
1,1-Dichloroethers	20	NE	NE	NE	ND	ND	
Total 1,2-Dichloroethers	16	NE	NE	NE	ND	ND	
Chloroform	100	100	NE	NE	ND	ND	
1,2-Dichloroethers	1	5	NE	NE	ND	ND	
1,1,1-Trichloroethers	200	200	NE	NE	ND	ND	
Carbon tetrachloride	5	5	NE	NE	ND	ND	
Bromochloroethers	100	100	NE	NE	ND	ND	
1,2-Dichloroethers	10	NE	NE	NE	ND	ND	
Tetra-1,3-dichloroethers	NE	NE	NE	NE	ND	ND	
Trichloroethers	5	5	NE	NE	ND	ND	
Dibromochloroethers	100	100	NE	NE	ND	ND	
1,1,2-Trichloroethers	100	NE	NE	NE	ND	ND	
cis-1,3-Dichloroethers	87	NE	NE	NE	ND	ND	
2-Chloroethyl vinyl ether	NE	NE	NE	NE	ND	ND	
Bromoform	100	100	NE	NE	ND	ND	
1,1,2,2-Tetrachloroethers	NE	NE	NE	NE	ND	ND	
Tetrachloroethers	4	NE	NE	NE	ND	ND	
Chlorobenzene	30	NE	NE	NE	ND	ND	
1,3-Dichlorobenzene	130	NE	NE	NE	ND	ND	
1,2-Dichlorobenzene	130	NE	NE	NE	ND	ND	
1,4-Dichlorobenzene	(LOQ)0.5	NE	NE	NE	ND	ND	

ALL UNITS ARE ug/l
 M4 = Monitoring Well
 RADIAN = Radian Corporation, Sacramento
 SAC = Radian Analytical Services, Sacramento
 ND = Nothing detected
 LOQ = Limit of quantitation
 NE = Not established

TABLE 1-63. MASTER LOG OF WELLS SAMPLED FOR U.S. EPA METHOD 602 COMPOUNDS
FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MACLELLAN AFB

Parameter	U.S. EPA		WELL NUMBER	
	Action Level	Primary MCL	M4-1012	M4-1040
Ground Water Zone			SHALLOW	DEEP
Date Sampled			07/26/88	07/20/88
Sampled By			RADIAN	RADIAN
Date Analyzed			07/27/88	07/22/88
Lab			SAC	SAC
Field Analysis				
Lab Analysis				
Chlorobenzene	30	NE	NO	NO
1,3-Dichlorobenzene	130	NE	NO	NO
1,2-Dichlorobenzene	130	NE	NO	NO
1,4-Dichlorobenzene	(LOQ)0.5	NE	NO	NO
Benzene	.7	S	NO	NO
Ethylbenzene	680	NE	NO	NO
Toluene	100	NE	NO	NO

ALL UNITS ARE ug/l
M4 = Monitoring Well

RADIAN = Radian Corporation, Sacramento
SAC = Radian Analytical Services, Sacramento
NO = Nothing detected
LOQ = Limit of quantitation
NE = Not established

TABLE 1-64. MASTER LOG OF WELLS SAMPLED FOR PRIORITY POLLUTANT METALS AND OTHER INORGANIC COMPOUNDS
FOR THE NORTHEAST AREA, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM,
JULY THROUGH SEPTEMBER 1988, MCLELLAN AFB

Parameter	DOES		U.S. EPA		WELL NUMBER	
	Action	Level	Primary	MCL	M4-1012	M4-1012
Ground Water Zone					SHALLOW	SHALLOW
Date Sampled					07/26/88	07/26/88
Sampled By					RADIAN	RADIAN
Date Analyzed					SAC	CEB
Lab					FDA	FDB
Field Analysis						
Lab Analysis						
Arsenic	NE	NE	NE	ND	ND	ND
Barium	NE	NE	0.050	ND	ND	ND
Beryllium	NE	NE	NE	ND	ND	ND
Cadmium	NE	NE	0.010	ND	ND	ND
Chromium	NE	NE	0.050	ND	ND	ND
Copper	NE	NE	NE	ND	ND	ND
Lead	NE	NE	0.050	ND	ND	ND
Mercury	NE	NE	0.002	ND	ND	ND
Nickel	NE	NE	NE	ND	ND	ND
Selenium	NE	NE	0.010	ND	ND	ND
Silver	NE	NE	0.050	ND	ND	ND
Thallium	NE	NE	NE	ND	ND	ND
Zinc	NE	NE	NE	0.003	ND	ND
Fluoride	NE	NE	NE	ND	ND	ND
Calcium	NE	NE	NE	ND	ND	ND
Chloride	NE	NE	NE	ND	ND	ND
Carbonate	NE	NE	NE	ND	ND	ND
Iron	NE	NE	NE	ND	ND	ND
Bicarbonate	NE	NE	NE	ND	ND	ND
Magnesium	NE	NE	NE	ND	ND	ND
Sodium	NE	NE	NE	ND	ND	ND
Sulfate	NE	NE	NE	ND	ND	ND
Boron	NE	NE	1.0	ND	ND	ND
Manganese	NE	NE	NE	ND	ND	ND
Total Alkalinity	NE	NE	NE	ND	ND	ND
Nitrate	NE	NE	45	ND	ND	ND
Total Dissolved Solids	NE	NE	NE	ND	ND	ND

ALL UNITS ARE mg/l
M4 = Monitoring Well
FDA = First field duplicate analysis
FDB = Second field duplicate analysis
RADIAN = Radian Corporation, Sacramento
CEB = Cerritos Environmental Services
SAC = Radian Analytical Services, Sacramento
ND = Nothing detected
NA = Not analyzed
NE = Not established

2.0 EVALUATION OF INTERIM REMEDIAL MEASURES

Three interim remedial measures have been implemented by McClellan AFB as a result of the findings of the Groundwater Sampling and Analysis Program and other Remedial Investigation/Feasibility Studies activities. These remedial measures include providing municipal water hookups to approximately 500 residences to the west, north and south of the base, installation of a synthetic liner/cover, clay cap and an extraction system in Area D, and installation of a groundwater extraction system in Area C. The residences were connected to the municipal system in the spring of 1986. Pumping of Area D extraction system was begun in March 1987 and pumping of the Area C extraction system was begun on 29 August 1988. The effectiveness of the Area D extraction system is discussed below. The Area C extraction system will be evaluated in the next data summary (covering October through December) because the system was on-line for only two days prior to monthly water-level measurements.

2.1 Area D Extraction System

The Area D extraction system consists of six extraction wells, all screened between 40 to 160 feet below ground surface. The extraction wells are located in the area of a sludge/waste pit that has been excavated and capped. The wells are continuously pumped and collectively produce approximately 100 gallons per minute (gpm). The extracted water is then pumped via an above-ground pipeline to the Groundwater Treatment Plant where the water is treated to remove contaminants.

The purpose of the extraction system is to isolate and contain contaminants within Area D (McLaren Environmental Engineering, 1987). To accomplish this goal, McLaren recommended that the effectiveness of the extraction system be based on gradient controls between specific pairs of wells. The specified gradients were based on head differences of 0.2 feet between the well pairs. McLaren also recommended pumping at the minimum flow rate of 78 gpm which would result in a three foot drawdown in the monitoring

wells after one year of pumping. McLaren recommended the 78 gpm flow rate to minimize the decline of groundwater levels thereby prolonging the usefulness of the extraction system.

The effectiveness of the Area D extraction system is evaluated below based on McLaren's gradient criteria. Long-term changes in contaminant concentrations from several monitoring wells were also reviewed to examine the effect of the extraction system on water quality.

Water-Level Data

The water-level data from July, August, and September for the McLaren-specified-well pairs were used to calculate head differences and gradients. Table 2-1 presents the well pairs and calculated head differences and gradients. As shown in the table, the extraction system is operating at a rate that meets that gradient criteria established by McLaren Engineers. The potentiometric surface maps of Area D (Plates 3, 5, 8, 10, 13, and 15) also illustrate the effects on the groundwater flow directions from pumping of the Area D extraction system. The maps show contours of equal head; groundwater flow is perpendicular to these contours in the direction of decreasing head values. In Area D, groundwater flow direction in both the shallow and middle monitoring zones is towards the extraction wells.

Analytical Data

Analytical results were reviewed from shallow, middle and deep zone monitoring wells located both on base and off base. Time series plots for 13 of the monitoring wells were prepared using trichloroethene (TCE) data. TCE was used as an indicator compound because it is the most widely detected compound in the McClellan AFB groundwater monitoring network. TCE data were plotted for wells with sampling history of at least three points. Included in each time series plot are "error bars" of ± 30 percent for each data point. The error bars represent the sampling variability calculated for each reported concentration and are based on statistical analysis discussed in the Semi-annual Informal Report (Radian, 1988). The sampling variability is attributed

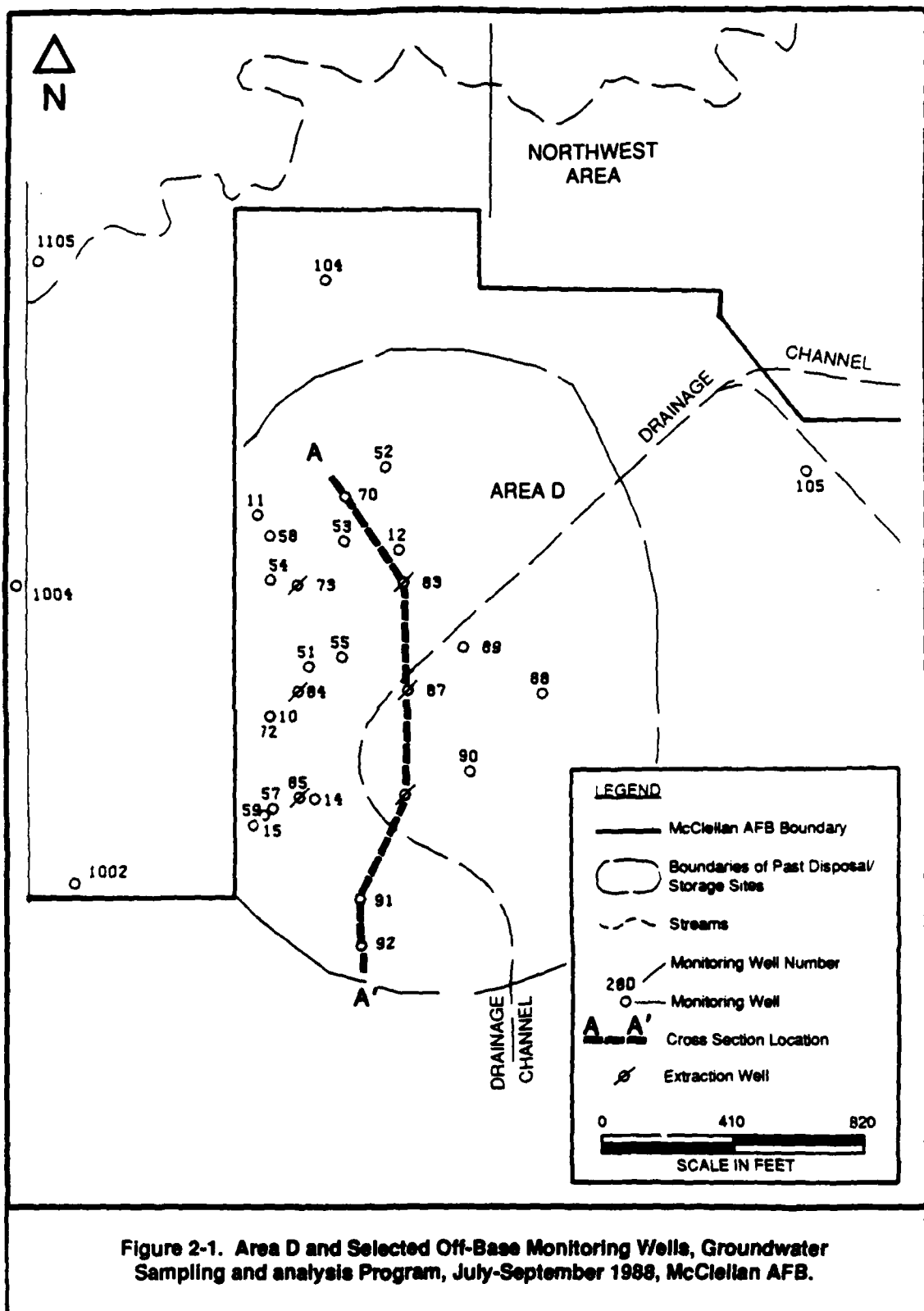
TABLE 2-1. MONTHLY HEAD DIFFERENCES AND GRADIENTS OF SELECTED WELLS IN AREA D
GROUNDWATER SAMPLING AND ANALYSIS PLAN, JULY THROUGH SEPTEMBER 1988
McCLELLAN AFB

Well Pair	Monitoring Zone	06/30/88			08/01/88			09/01/88		
		Head Differences (ft)	Gradient (ft/ft)	Head Differences (ft)	Gradient (ft/ft)	Head Differences (ft)	Gradient (ft/ft)	Head Differences (ft)	Gradient (ft/ft)	NC
MW-53 & MW-70	Middle	0.69	0.006							
MW-54 & MW-76	Middle	1.29	0.009	1.61	0.001	1.60	0.011			
MW-72 & MW-74	Middle	0.68	0.005	0.33	0.002	0.37	0.003			
MW-88 & MW-89	Shallow	0.61	0.002	0.70	0.002	0.87	0.003			
MW-88 & MW-90	Shallow	0.91	0.003	1.0	0.004	1.18	0.004			
MW-91 & MW-92	Shallow	0.33	0.002	0.32	0.002	0.33	0.002			

NM = Not measured.
NC = Not calculated.

to both laboratory and field procedures and will be re-evaluated using additional QA/QC data in the next interpretative report. For the purpose of qualitatively evaluating the effectiveness of the extraction system, the long term changes in TCE concentrations were reviewed for selected monitoring wells. A decreasing trend in concentrations would be expected in monitoring wells the greatest radial distance from the extraction wells but still within the influence of the wells. The monitoring wells close to the extraction wells are expected to show greater TCE concentrations over a longer period of time because they are near the contaminant sources and are also near extraction wells that are drawing contaminated groundwater towards the wells. The time series plots for the 13 monitoring wells are evaluated below.

There are seven shallow zone monitoring wells located in Area D and three shallow zone monitoring wells located approximately 500 feet west of Area D with a sampling history considered adequate for the time series review. The on-base monitoring wells are MW-10, MW-11, MW-12, MW-14, MW-15, MW-91, and MW-92, and the off-base wells are MW-1002, MW-1004, and MW-1005. The locations of these wells are shown in Figure 2-1. The time series plots for MW-10, MW-11, MW-12, MW-14, and MW-15 (Figure 2-2) are based on three sampling events, two in 1988 and one sampling event in 1985. The time/series plots for these wells except MW-10 indicate TCE concentrations during the past two sampling events are lower than in 1985. TCE concentrations in MW-10 appear to be increasing since 1985. In addition, TCE concentrations in MW-12 and MW-14 may also show an increase during this sampling period. The time series plots for MW-91 and MW-92 indicate increasing concentrations until Third Quarter 1987 after TCE concentrations have leveled off. MW-91 and MW-92, as shown in Figure 2-1 are located to the south of the extraction system well field. The time series plots for the three off-base monitoring wells, MW-1002, MW-1004, and MW-1005 show a long-term decrease in TCE concentrations that have leveled off since the Fourth Quarter 1987. Overall, the time series plots for the shallow zone monitoring wells located outside the well field show a decreasing trend that has leveled off in recent sampling events. The trends for the shallow zone monitoring wells are not readily apparent based on only three data points. High concentrations of TCE may continue to be detected in these



1088-055-1

AREA D SHALLOW ZONE

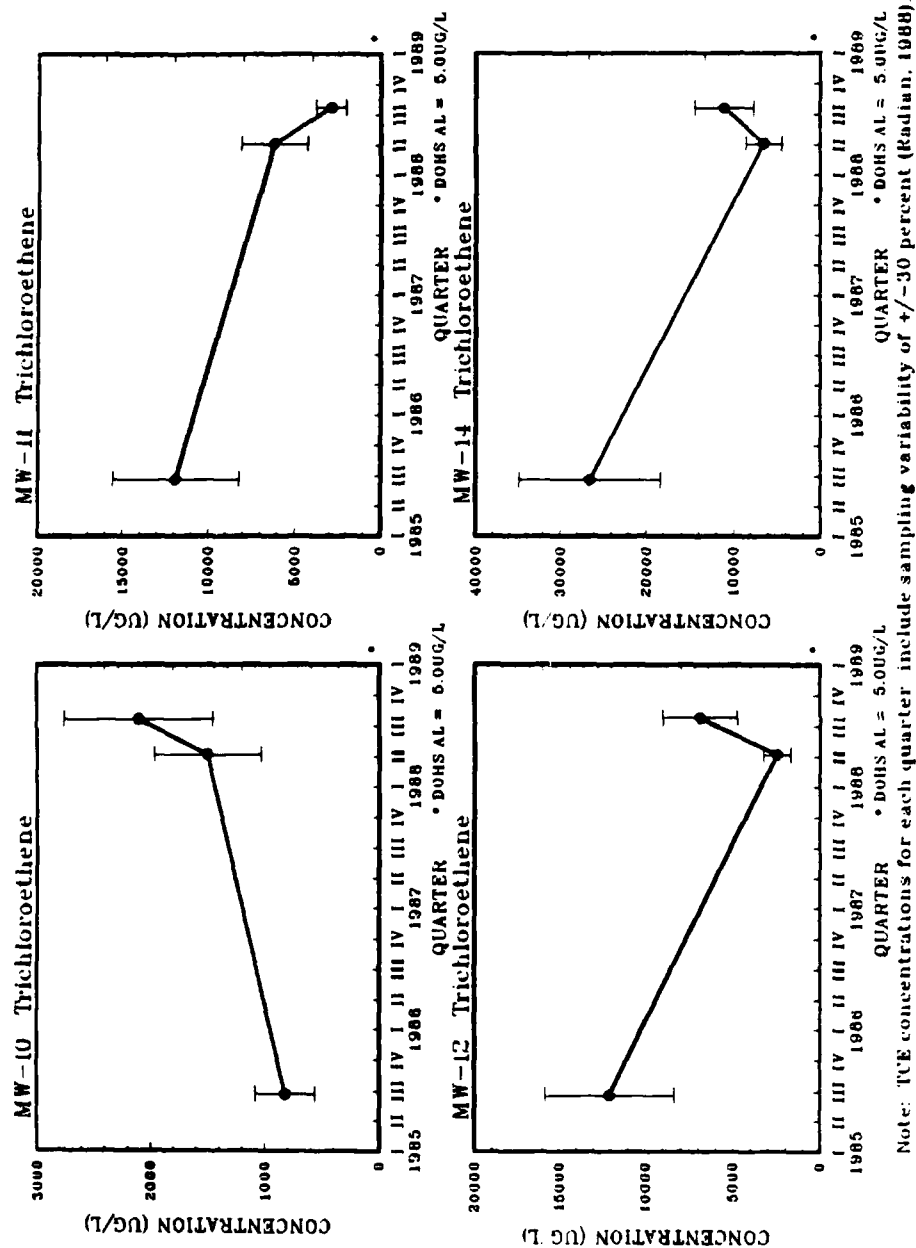


Figure 2-2. Time Series Plots for Selected Area D and Off-Base Shallow Zone Monitoring Wells, Groundwater Sampling and Analysis Program July-September 1988, McClellan AFB.

AREA D SHALLOW ZONE

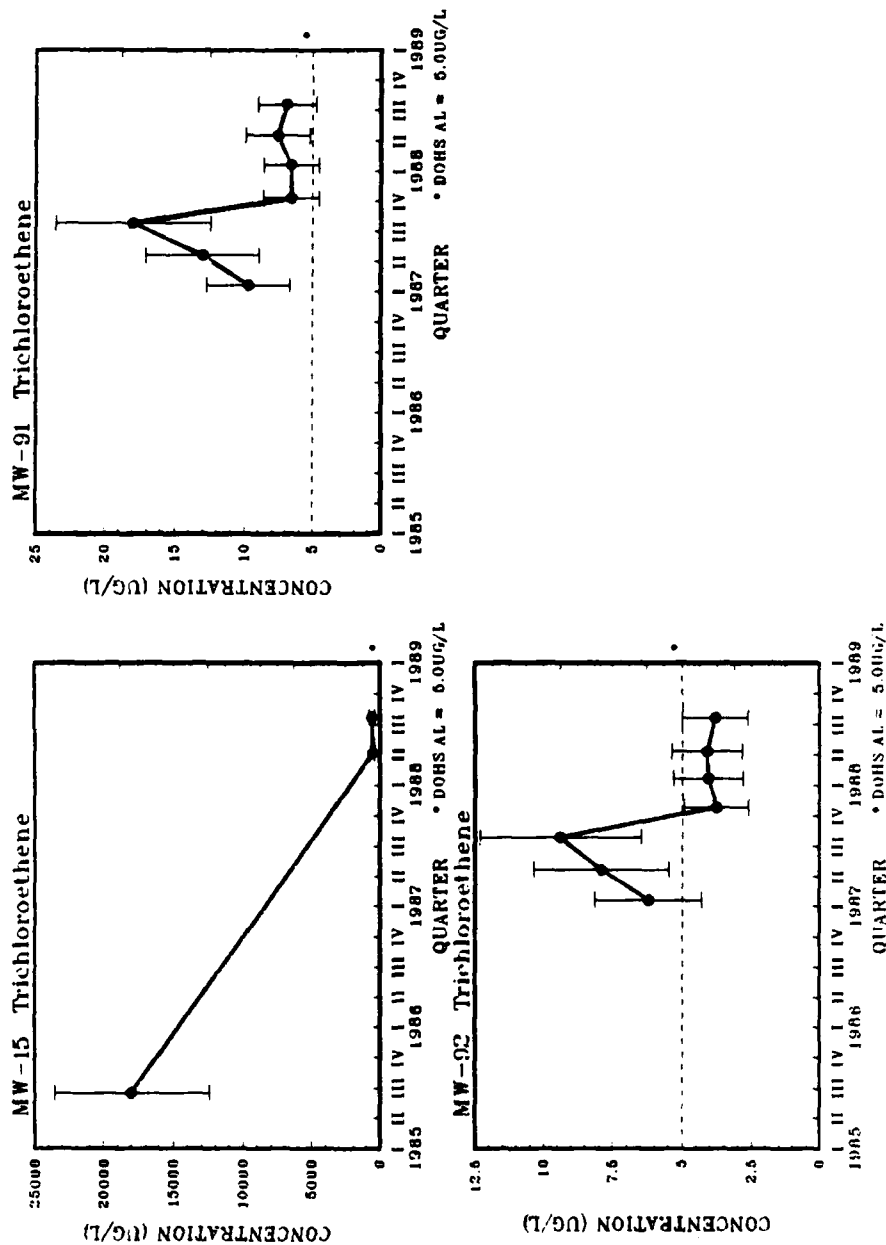


Figure 2-2. Time Series Plots for Selected Area D and Off-Base Shallow Zone Monitoring Wells, Groundwater Sampling and Analysis Program July-September 1988, McClellan AFB.

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NORTHWEST AREA SHALLOW ZONE WELLS

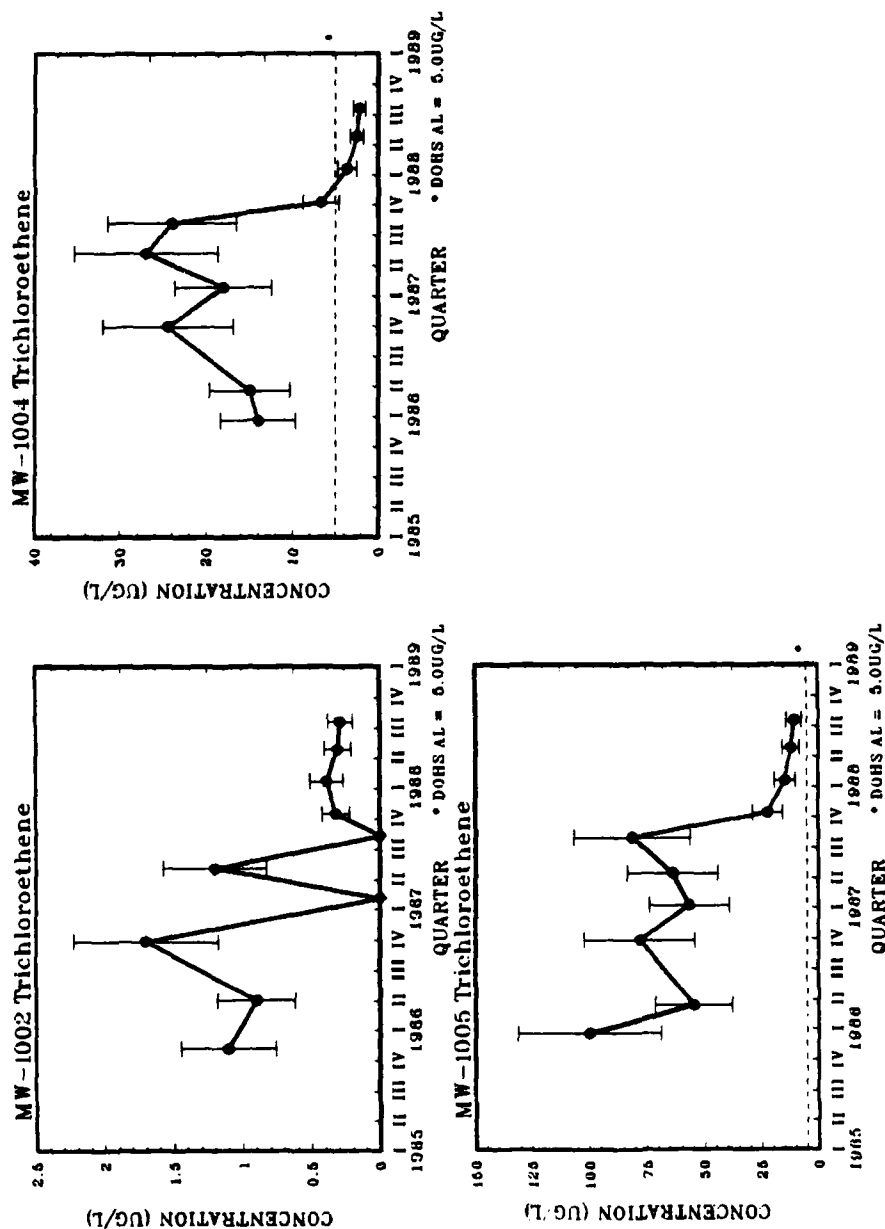


Figure 2-2. Time Series Plots for Selected Area D and off-Base Shallow Zone Monitoring Wells, Groundwater Sampling and Analysis Program July-September 1988, McClellan AFB.

-continued-

wells because they are located near extraction wells that are drawing contaminated water towards them.

There are four middle zone monitoring wells in Area D with an adequate sampling history for time series plots as shown in Figure 2-3. These wells, located near the extraction wells (Figure 2-1) are MW-53, MW-54, MW-55, and MW-72. The time series plots for MW-53, MW-54, and MW-55 all show a decreasing trend except in this sampling period. These three monitoring wells are located closer to EW-73, the extraction well with the highest contaminant concentrations. The time series plot for MW-72, located near EW-84, shows a long-term steady TCE concentration pattern over the past four sampling periods.

Two deep zone monitoring wells in Area D have adequate sampling points for plotting TCE concentrations over time. These wells, MW-58 and MW-59, are located northwest of EW-73 and southwest of EW-85, respectively (Figure 2-1). The time series plots are shown in Figure 2-4. Samples from MW-58 have typically contained low levels of TCE or TCE was not detected. An apparent trend cannot be discerned for this well. The time series plot for MW-59 shows a concentration peak during the Fourth Quarter 1986 sampling, and then a decrease in concentration during the past six sampling events. The TCE concentration trends for both wells suggest that contaminant movement in the deep zone is affected by the extraction well pumping of the shallow and middle monitoring zones as uncontaminated water flows toward the extraction wells diluting contaminant concentrations.

In summary, there is no single trend apparent in the TCE concentrations for the monitoring wells. The shallow zone monitoring wells located outside the extraction well-field have shown a decrease followed by recent leveling off of TCE concentrations. Trends for the shallow zone wells located near the extraction wells are not readily apparent because there are only three data points for three years. Three of the four middle zone monitoring wells show a decreasing trend except during this last sampling period. Several shallow and middle zone monitoring wells, MW-10, MW-12, MW-14, MW-53,

AREA D MIDDLE ZONE WELLS

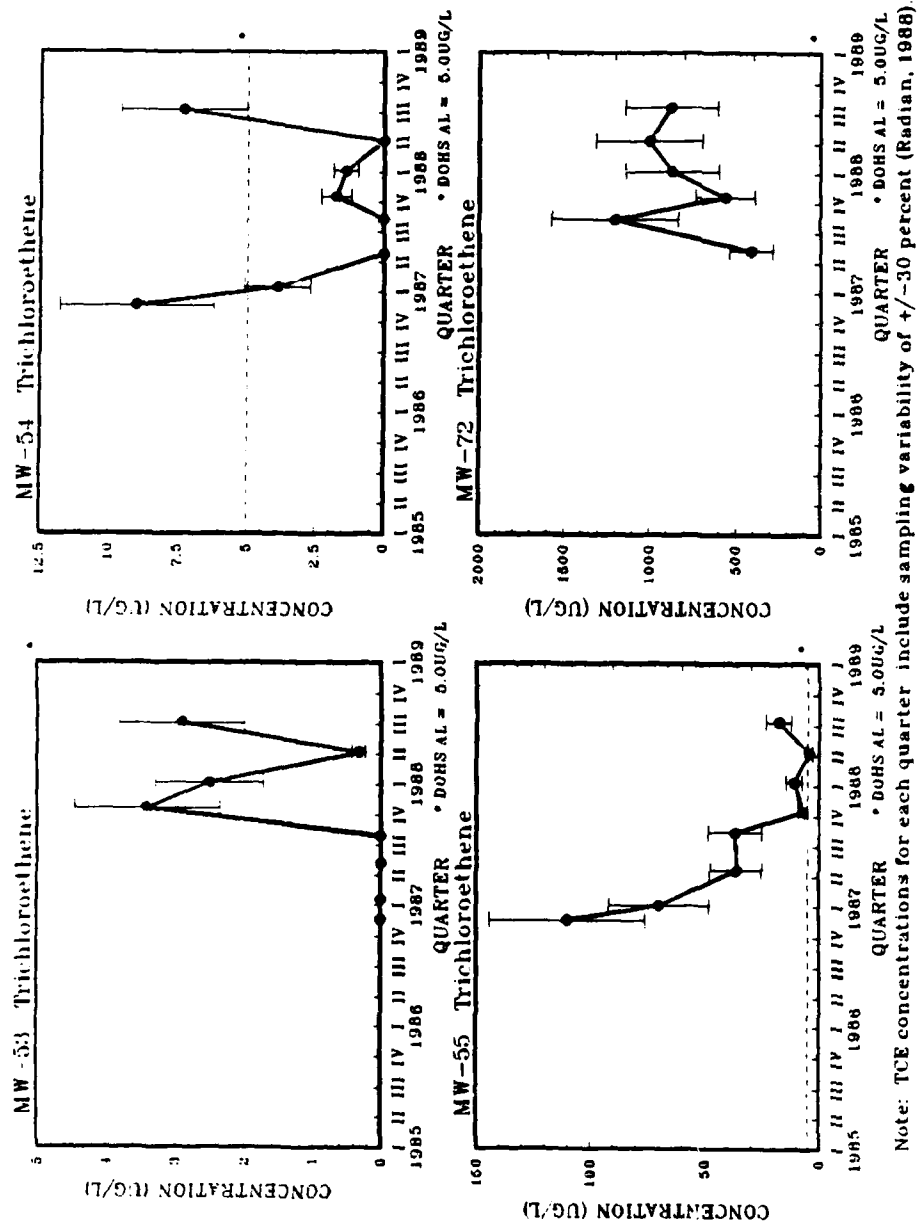
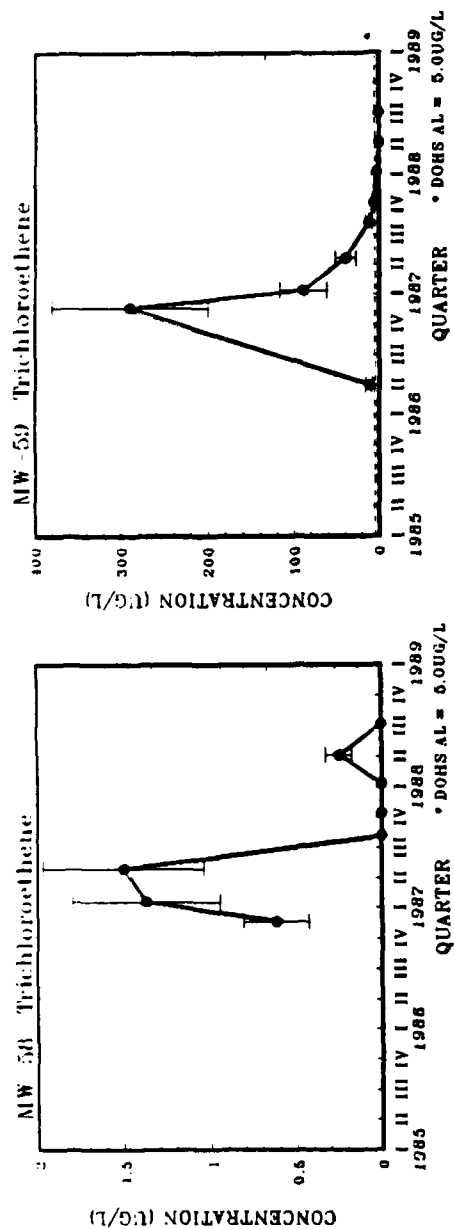


Figure 2-3. Time Series Plots for Selected Area D Middle Zone Monitoring Wells, Groundwater Sampling and Analysis Program, July-September 1988, McClellan AFB.

AREA D DEEP ZONE WELLS



Note: TCE concentrations for each quarter include sampling variability of ± 30 percent (Radon, 1988).

Figure 2-4. Time Series Plots for Selected Area D Deep Zone Monitoring Wells, Groundwater Sampling and Analysis Program, July-September 1988, McClellan AFB.

MW-54, and MW-55, show an increase in TCE concentration during this sampling period. Higher concentrations may occur during the third quarter of each year, but there is not enough quarterly data for these wells to determine if this is a seasonal trend. The two deep zone monitoring wells have both shown decreasing trends and during the last sampling period, TCE was not detected in samples from either well. Overall, if TCE concentrations in monitoring wells located outside the extraction well field continue to show a decreasing trend, then the extraction system based on water quality data would be effectively removing contaminants.

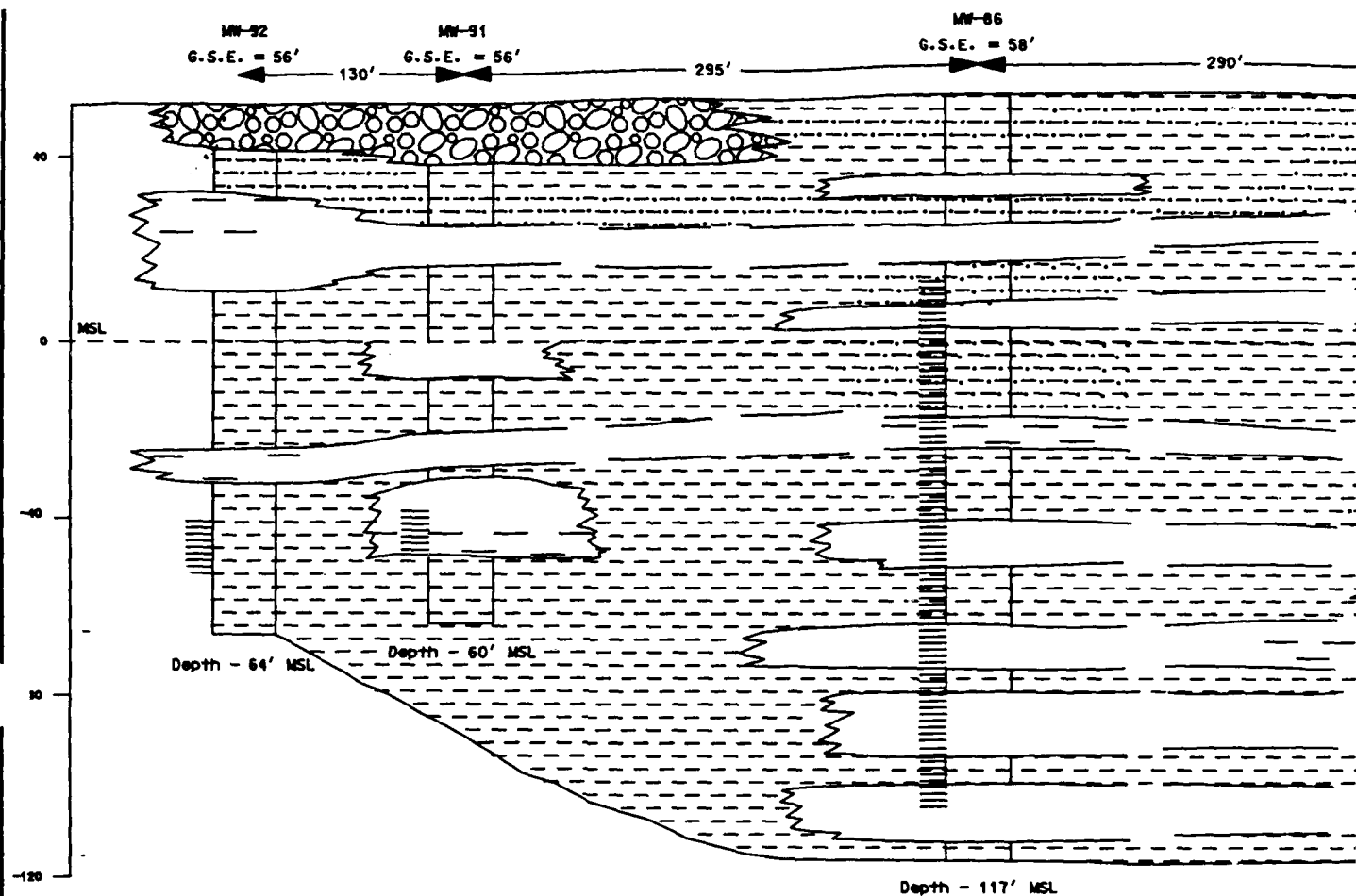
Cross Sections

In addition to the water level data and time series plots, a cross section for Area D (Figure 2-5) was also prepared. The wells that were used to develop the cross section are MW-92, MW-91, EW-85, EW-84, MW-55, EW-73, and MW-53, as shown on the location map (Figure 2-1). The cross section was based on geophysical information from McLaren Environmental Engineering (1987). The cross section also includes the location and screen interval of monitoring and extraction wells and the TCE concentration detected in the wells during this sample period. As shown in Figure 2-5, and in the time series plots TCE was detected only in the shallow and middle monitoring zones, and TCE concentrations are higher in monitoring wells closer to the extraction wells during this sampling period.

Conclusions

The Area D extraction system was evaluated based on hydraulic gradients between monitoring wells and by long term trends in contaminants, as detected in shallow, middle and deep monitoring zones. The Area D extraction system is being operated effectively based on hydraulic gradients recommended for specific pairs of monitoring wells. The water quality data from shallow monitoring zone wells outside of the well field does indicate that contaminant concentrations are decreasing or have stabilized since the extraction system began operating.

SOUTH
A'



LEGEND:

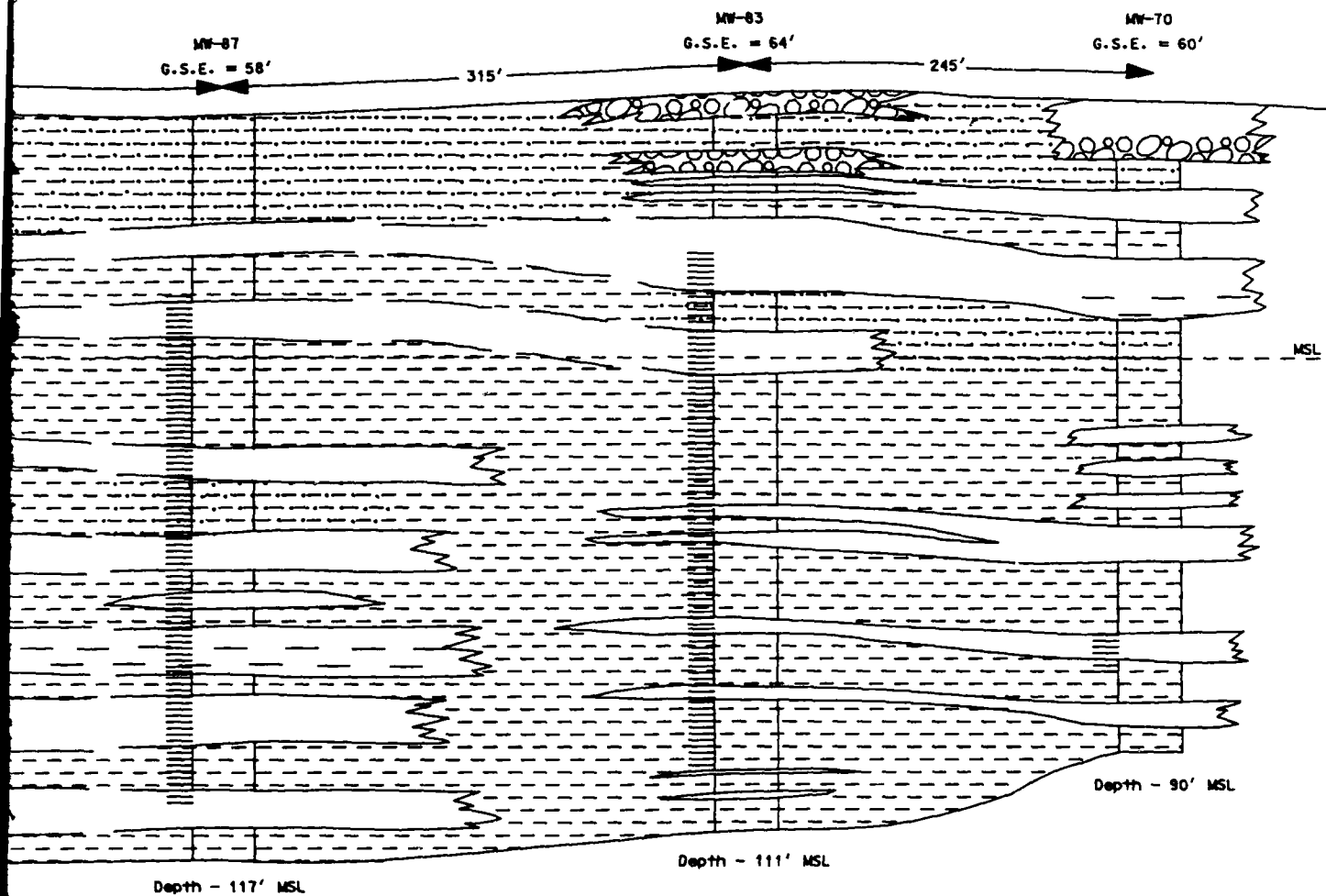
EW	Extraction Well		Sand
MW	Monitoring Well		Gravelly Sand
G.S.E.	Ground Surface Elevation		Silty Sand
- - - -	Mean Sea Level (MSL)		Silty Clay
	Screened Interval		Clay

NOTE: Lithologies taken primarily from resistivity logs.

SCALE:

Horizontal Scale: 1" = 100'
Vertical Scale: 1" = 40'

NORT
A



**TCE Concentrations
(for July 1988)**

EW-87	51 ppb
MW-92	3.8 ppb
MW-91	6.9 ppb
EW-86	77 ppb
EW-83	140 ppb
MW-70	ND

ND = Not Detected

Figure 2-5.
Area D Cross Section (A-A')
Groundwater Sampling & Analysis Pr
July-September 1988
McClellan AFB

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3.0 RECOMMENDATIONS

Recommendations based on field results and analytical data acquired through the sampling period of July through September 1988 are presented in the following sections. Section 3.1 presents recommendations based on this sampling period analytical data and data obtained previously. Section 3.2 presents the status of the recommendations given in previous quarterly reports.

3.1 July Through September 1988 Recommendations

- (1) Recommendation: Remove MW-19S, MW-20S, MW-22S, MW-34S, and MW-45S from the McClellan AFB Groundwater Monitoring Well Network.

Rationale: These monitoring wells are dry or do not contain enough water for water quality sampling, and have not been sampled for the past year. These wells are secured with a casing that is locked and do not need to be destroyed at this time. Water levels have been declining at a rate of about two feet per year in the McClellan AFB area and are unlikely to rebound to previous levels at which the five wells could be sampled.

3.2 Status of Recommendations From Previous Quarterly Reports

The following is a brief status of the recommendations made in previous quarterly reports.

- (1) Recommendation: Redevelop and install dedicated sampling systems in five wells that are currently purged by bailing. Well Wizard® bladder pumps are recommended for network

monitoring wells MW-10, MW-11, MW-12, MW-14, and MW-15 located in Area D.

Status: This recommendation has been re-evaluated based on estimated water level changes and costs of dedicated systems. Water levels in these Area D wells have dropped an average of 4.5 feet since October 1987. Based on a continued decline at the same rate, and considering the costs of buying and installing the dedicated systems, it is more cost effective to continue bailing the wells by hand each quarter that the wells are sampled.

- (2) **Recommendation:** Install dedicated systems in five monitoring wells that are currently purged using a portable submersible pump. A Well Wizard® system with purge and bladder pumps is recommended for MW-17D, MW-27D, MW-28D, and MW-19D, if sampling of this non-network well is to continue. A dedicated submersible pump retrofitted with Teflon® and stainless steel and a bladder pump is recommended for MW-68.

Status: Well Wizard® systems with purge and bladder pumps have been installed in MW-17D, MW-27D, and MW-28D. Installation of these systems were included in D.O. 0003, Mod. 02.

- (3) **Recommendation:** Investigate the integrity of the well casing and annulus of MW-31S.

Status: The well casing is damaged. Water quality samples will no longer be collected from this well. However, water levels will continue to be measured.

- (4) **Recommendation:** Change analytical methodologies to those prescribed in SW 846 "Test Methods for Evaluating Solid Wastes," Third Edition, beginning in the Fourth Quarter 1988.

Status: This recommendation will be implemented beginning in the sampling period of October through December 1988.

- (5) **Recommendation:** Install a monitoring well in the deep monitoring zone at monitoring well cluster 1021/1022 in the Southwest Area.

Status: This recommendation will be initiated within the HGA during 1989. The RI/FS Management Plan provides details concerning the scope and timing of the HGA.

- (6) **Recommendation:** Install two clusters of monitoring wells on the east side of McClellan AFB.

Status: This recommendation will be initiated within the HGA during 1989. The RI/FS Management Plan provides details concerning the scope and timing of the HGA work.

- (7) **Recommendation:** Conduct a phased investigation in the West Area to evaluate possible vadose zone contamination along the old and new course of Magpie Creek, and identify the extent of groundwater contamination in the shallow monitoring zone in the vicinity of Santa Ana Street.

Status: This recommendation will be initiated with the Pathways Assessment Study. The RI/FS Management Plan provides details concerning the scope and timing of the Pathways Assessment.

- (8) **Recommendation:** As a result of continued presence of halocarbon contamination in shallow zone monitoring wells MW-1019 and MW-1029, up to three shallow zone monitoring wells should be installed in the Northwest Area.

Status: At this point in time, Radian and the USAF have agreed that there is no immediate need for additional monitoring wells in this area. Should data collected in the future indicate otherwise, Radian and the USAF will reevaluate this recommendation.

- (9) Recommendation: Install a deep zone monitoring well in Area A next to middle zone monitoring well MW-27D.

Status: This recommendation is under consideration by the USAF.

- (10) Recommendation: Analyze samples collected from all newly installed monitoring wells and wells not previously sampled by Radian by U.S. EPA Methods 601, 602, 604, 624, 625, 200.7 and SW-9010 and evaluate the results to determine target analytes for future sampling events.

Status: SW 846 methodology will be used in future sampling events.

- (11) Recommendation: Discontinue analyses of groundwater samples by U.S. EPA Method 604.

Status: This recommendation has been implemented.

- (12) Recommendation: Limit the quarterly sampling of wells for priority pollutant metals to wells that have contained elevated concentrations of total dissolved chromium and lead. Change the sample collection procedure for wells that have contained elevated levels of chromium in order to speciate the chromium and determine if hexavalent chromium, a significant health risk, is present using Standard Method 312B.

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Status: This recommendation has been implemented. The methodology used to detect hexavalent chromium has been changed to SW-7196.

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Radian Corporation, September 1988b. "Semiannual Informal Technical Report, RI/FS Stage 3," McClellan AFB, Sacramento, CA.

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APPENDIX

APPENDIX. ANALYTICAL RESULTS FOR NETWORK MONITORING WELLS IN WHICH CONCENTRATIONS OF ANALYTES HAVE EXCEEDED STATE AND FEDERAL DRINKING WATER STANDARDS FROM 1985 TO SEPTEMBER 1988, GROUNDWATER SAMPLING AND ANALYSIS PROGRAM, MCLELLAN AFB

Analyte Name	DOHS	U.S. EPA	Round 1	Round 2	Round 3	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
Well	Action	Primary	1985	1985	1986	1986	1987	1987	1987	1987	1987	1988	1988
Number	Level	MCL	6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88	4-6/88	7-9/88
Vinyl chloride by U.S. EPA Method 601													
MW-10	2	1	ND	NS	NS	NS	NS	NS	NS	NS	NS	400C	360C
MW-11	2	1	ND	NS	NS	NS	NS	NS	NS	NS	NS	13C	ND
MW-33S	2	1	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-38D	2	1	2230	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	2	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	2	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methylene chloride by U.S. EPA Method 601													
MW-10	40	NE	55.3	NS	NS	NS	NS	NS	NS	NS	NS	0.6C	ND
MW-11	40	NE	3140	NS	NS	NS	NS	NS	NS	NS	NS	260C	ND
MW-14	40	NE	11400	NS	NS	NS	NS	NS	NS	NS	NS	13C	ND
MW-15	40	NE	1790	NS	NS	NS	NS	NS	NS	NS	NS	0.7C	ND
MW-29D	40	NE	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-36S	40	NE	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-55	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-59	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-103	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-104	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-105	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-112	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-115	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-1001	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-1005	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-1013	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-1019	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
1,1-Dichloroethene by U.S. EPA Method 601													
MW-10	6	7	1500	NS	NS	NS	NS	NS	NS	NS	NS	910C	1400C
MW-11	6	7	64300	NS	NS	NS	NS	NS	NS	NS	NS	17000C	20000C
MW-12	6	7	25500	NS	NS	NS	NS	NS	NS	NS	NS	8400C	22000P
MW-14	6	7	22600	NS	NS	NS	NS	NS	NS	NS	NS	5700C	13000P
MW-15	6	7	16500	NS	NS	NS	NS	NS	NS	NS	NS	83C	800C
MW-22D	6	7	297	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-28D	6	7	6.5	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
MW-38D	6	7	11500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-44S	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-55	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-57	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-59	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-74	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-76	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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APPENDIX. (continued)

Analyte Name	DOHS	U.S. EPA	Round 1	Round 2	Round 3	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
Well	Action	Primary	1985	1985	1986	1986	1987	1987	1987	1987	1988	1988	1988
Number	Level	MCL	6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88	4-6/88	7-9/88
1,1-Dichloroethane by U.S. EPA Method 601													
MW-91	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-130	6	7	NS	NS	NS	3.2C	4.0C	14C	14C	8.1C	3.3C	1.3C	0.65PC
MW-137	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1004	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1005	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1-Dichloroethane by U.S. EPA Method 601													
MW-10	20	NE	118	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	20	NE	3560	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	20	NE	1780	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-33S	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-38D	20	NE	4430	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1005	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total 1,2-Dichloroethane by U.S. EPA Method 601													
MW-10	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-27D	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-33S	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-38D	16	NE	7020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-41S	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-55	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-63	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-76	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-120	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-128	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-131	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-132	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-139	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-140	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-141	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1000	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1005	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloroform by U.S. EPA Method 601													
MW-14	100	100	2320	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane by U.S. EPA Method 601													
MW-10	1	5	94.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	1	5	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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APPENDIX. (continued)

Analyte Name	DOHS	U.S. EPA	Round 1	Round 2	Round 3	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
Well	Action	Primary	1985	1985	1986	1987	1987	1987	1987	1987	1988	1988	1988
Number	Level	MCL	6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88	4-6/88	7-9/88
1,2-Dichloroethane by U.S. EPA Method 601													
MW-14	1	5	2790	NS	NS	NS	NS	NS	NS	NS	NS	36C	ND
MW-15	1	5	ND	NS	NS	NS	NS	NS	NS	NS	NS	6.8C	5.6C
MW-27D	1	5	ND	NS	NS	NS	NS	NS	NS	NS	NS	0.98PC	2.7C
MW-33S	1	5	ND	NS	NS	62C	88C	ND	140DL	ND	0.41C	0.98PC	530C
MW-38D	1	5	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-41S	1	5	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	1	5	NS	NS	NS	39DL	14C	ND	0.23C	1.2C	0.17C	ND	1.0C
MW-55	1	5	NS	NS	NS	2.9DL	2.9	0.93DL	ND	0.95C	1.1C	0.34PC	1.0P
MW-72	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	210PC	150P
MW-76	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.4C	NS
MW-117	1	5	NS	NS	NS	0.2	1.0C	NS	NS	NS	NS	NS	NS
MW-128	1	5	NS	NS	NS	41DL	ND	63DL	75DL	ND	0.31C	0.45PC	1.1P
MW-131	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-139	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1004	1	5	NS	NS	NS	1.9C	NS	NS	NS	NS	NS	NS	NS
MW-1005	1	5	NS	NS	NS	0.7	1.9C	NS	NS	NS	NS	NS	NS
1,1,1-Trichloroethane by U.S. EPA Method 601													
MW-10	200	200	327	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	200	200	18100	NS	NS	NS	NS	NS	NS	NS	NS	36C	ND
MW-12	200	200	12400	NS	NS	NS	NS	NS	NS	NS	NS	3800C	2700C
MW-14	200	200	22800	NS	NS	NS	NS	NS	NS	NS	NS	1200C	4500P
MW-15	200	200	4100	NS	NS	NS	NS	NS	NS	NS	NS	3100C	5500P
MW-33S	200	200	ND	NS	NS	NS	NS	NS	NS	NS	NS	110C	110C
MW-38D	200	200	1870	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbon tetrachloride by U.S. EPA Method 601													
MW-27D	5	5	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-33S	5	5	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloropropane by U.S. EPA Method 601													
MW-33S	10	NE	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-128	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene by U.S. EPA Method 601													
MW-6	5	5	86.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	5	5	38.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	5	5	134	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	5	5	826	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	5	5	11900	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	5	5	12100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	5	5	26600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	5	5	18000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-19S	5	5	4.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-22D	5	5	213	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-26D	5	5	8.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-26S	5	5	21.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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APPENDIX. (continued)

Analyte Name	DOHS Action Level	U.S. EPA Method	Round 1	Round 2	Round 3	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
Well Number	Primary	MCL	1985	1985	1986	1986	1987	1987	1987	1987	1988	1988	1988
			6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88	4-6/88	7-9/88
Trichloroethene by U.S. EPA Method 601													
MW-27D	5	5	4.6	NS	NS	NS	NS	NS	195C	76C	40C	35C	56PC
MW-27S	5	5	63.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	91P
MW-28D	5	5	8.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-33S	5	5	22600	NS	NS	NS	NS	NS	25000C	52000C	35000C	22000PC	24000C
MW-36S	5	5	2.9	NS	1.8	NS	NS	NS	2.2MC	5.3C	1.8C	1.9C	2.6C
MW-38D	5	5	296	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.5C
MW-40S	5	5	190	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-41S	5	5	23.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	5	5	NS	NS	NS	NS	NS	NS	91C	130C	100C	140PC	220PC
MW-55	5	5	NS	NS	NS	NS	NS	NS	9.0DL	ND	1.8C	1.4C	7.3C
MW-57	5	5	NS	NS	NS	NS	NS	NS	110C	37C	7.0C	11C	4.6PC
MW-59	5	5	NS	NS	NS	NS	NS	NS	2.5C	ND	0.58C	2.3C	ND
MW-61	5	5	NS	NS	NS	NS	NS	NS	14C	ND	6.2C	2.3PC	0.49PC
MW-63	5	5	NS	NS	NS	NS	NS	NS	108C	13C	5.3C	4.3C	5.2PC
MW-72	5	5	NS	NS	NS	NS	NS	NS	22C	14C	5.3C	4.3C	5.2PC
MW-74	5	5	NS	NS	NS	NS	NS	NS	7.4	190C	52C	69C	44PC
MW-75	5	5	NS	NS	NS	NS	NS	NS	41C	560C	870PC	1000PC	960P
MW-91	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.3C
MW-92	5	5	NS	NS	NS	NS	NS	NS	9.9C	18C	6.7C	6.6C	7.6PC
MW-117	5	5	NS	NS	NS	NS	NS	NS	6.2C	9.4C	3.8C	4.4PC	4.1C
MW-120	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-123	5	5	NS	NS	NS	NS	NS	NS	19.32C	26C	9.3C	8.8C	9.8C
MW-128	5	5	NS	NS	NS	NS	NS	NS	7.1C	NS	NS	NS	NS
MW-129	5	5	NS	NS	NS	NS	NS	NS	41000C	68000C	27000C	19000PC	34000C
MW-131	5	5	NS	NS	NS	NS	NS	NS	10C	610C	45C	11C	27C
MW-132	5	5	NS	NS	NS	NS	NS	NS	29C	120C	55C	32C	52PC
MW-135	5	5	NS	NS	NS	NS	NS	NS	90C	110C	130	77PC	48C
MW-136	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	30C	26PC
MW-137	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	230C	220PC
MW-139	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	350C	300PC
MW-140	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	89C	74PC
MW-141	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	56C	36PC
MW-1004	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	90C	150PC
MW-1005	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.2C	2.2C
MW-1021	5	5	NS	NS	NS	NS	NS	NS	26C	24C	7.2C	3.6PC	14P
MW-1022	5	5	NS	NS	NS	NS	NS	NS	80C	86C	22C	15PC	12PC
MW-1041	5	5	NS	NS	NS	NS	NS	NS	57C	46C	17C	11PC	14C
MW-38D	100	NE	213	NS	NS	NS	NS	NS	13C	21C	7.6C	4.8PC	11P
Tetrachloroethene by U.S. EPA Method 601	4	NE	64.9	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND
MW-10	4	NE	2480	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	4	NE	1260	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	4	NE	1260	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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APPENDIX. (continued)

Analyte Name	DOHS	U.S. EPA	Round 1	Round 2	Round 3	4th Qtr. 1st Qtr.	4th Qtr. 2nd Qtr.	4th Qtr. 3rd Qtr.	4th Qtr. 1st Qtr.	4th Qtr. 2nd Qtr.	4th Qtr. 3rd Qtr.
Well	Action	Primary	1985	1985	1986	1986	1987	1987	1987	1988	1988
Number	Level	MCL	6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88
Tetrachloroethene by U.S. EPA Method 601											
MW-14	4	NE	ND	NS	NS	NS	NS	NS	NS	NS	7.6C
MW-22D	4	NE	13.5	NS	NS	NS	NS	NS	NS	NS	ND
MW-33S	4	NE	ND	NS	NS	NS	NS	NS	NS	NS	ND
MW-38D	4	NE	260	NS	NS	NS	NS	NS	NS	NS	ND
MW-41S	4	NE	3.3	NS	0.6	0.18DL	NS	NS	NS	NS	ND
MW-54	4	NE	NS	NS	NS	4.1DL	NS	NS	NS	NS	ND
MW-55	4	NE	NS	NS	NS	13C	46C	NS	NS	NS	ND
MW-128	4	NE	NS	NS	NS	23DL	NS	NS	NS	NS	ND
MW-1021	4	NE	NS	NS	NS	2.8C	NS	NS	NS	NS	ND
1,2-Dichlorobenzene by U.S. EPA Method 601											
MW-10	130	NE	69.8	NS	NS	NS	NS	NS	NS	NS	210C
MW-38D	130	NE	147	NS	NS	NS	NS	NS	NS	NS	NS
1,4-Dichlorobenzene by U.S. EPA Method 601											
MW-11	(LOQ)0.5	NE	ND	NS	NS	NS	NS	NS	NS	NS	2.0C
MW-14	(LOQ)0.5	NE	ND	NS	NS	NS	NS	NS	NS	NS	1.4C
MW-33S	(LOQ)0.5	NE	ND	NS	NS	6.2NC	NS	NS	NS	NS	ND
MW-54	(LOQ)0.5	NE	NS	NS	NS	57DL	NS	NS	NS	NS	ND
MW-61	(LOQ)0.5	NE	NS	NS	2.3	NS	NS	NS	NS	NS	ND
MW-128	(LOQ)0.5	NE	NS	NS	NS	NS	NS	NS	NS	NS	ND
1,2-Dichlorobenzene by U.S. EPA Method 602											
MW-10	130	NE	NS	NS	NS	NS	NS	NS	NS	NS	200C
1,4-Dichlorobenzene by U.S. EPA Method 602											
MW-33S	(LOQ)0.5	NE	NS	NS	NS	4.2C	NS	NS	NS	NS	ND
MW-55	(LOQ)0.5	NE	NS	NS	NS	.58DL	NS	NS	NS	NS	ND
MW-61	(LOQ)0.5	NE	NS	NS	0.7	NS	NS	NS	NS	NS	ND
MW-75	(LOQ)0.5	NE	NS	NS	NS	NS	NS	NS	NS	NS	0.73C
MW-128	(LOQ)0.5	NE	NS	NS	NS	NS	NS	NS	NS	NS	ND
Benzene by U.S. EPA Method 602											
MW-10	.7	5	NS	NS	NS	NS	NS	NS	NS	NS	ND
MW-11	.7	5	NS	NS	NS	NS	NS	NS	NS	NS	ND
MW-54	.7	5	NS	NS	NS	9.5C	NS	NS	NS	NS	ND
MW-104	.7	5	NS	NS	0.9	NS	NS	NS	NS	NS	ND
MW-112	.7	5	NS	NS	NS	2.2NC	NS	NS	NS	NS	ND
MW-1000	.7	5	NS	NS	0.7	NS	NS	NS	NS	NS	ND
MW-1015	.7	5	NS	NS	0.9	NS	NS	NS	NS	NS	ND
MW-1021	.7	5	NS	NS	NS	NS	NS	NS	NS	NS	ND
Toluene by U.S. EPA Method 602											
MW-54	100	NE	NS	NS	NS	230C	NS	NS	NS	NS	ND
Vinyl chloride by U.S. EPA Method 624											
MW-10	2	1	NS	NS	NS	NS	NS	NS	NS	NS	ND
MW-54	2	1	NS	NS	NS	NS	NS	NS	NS	NS	ND
Methylene chloride by U.S. EPA Method 624											
MW-11	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	ND

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Analyte Name	DOHS Action Level	U.S. EPA Primary MCL	Round 1 1985 6/85	Round 2 1985 11-12/85	Round 3 1986 2-4/86	1st Qtr. 1986 9-12/86	2nd Qtr. 1987 1-3/87	3rd Qtr. 1987 4-6/87	4th Qtr. 1987 7-9/87	1st Qtr. 1988 1-3/88	2nd Qtr. 1988 4-6/88	3rd Qtr. 1988 7-9/88
1,1-Dichloroethene by U.S. EPA Method 624												
MW-10	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-55	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-59	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-74	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-76	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-91	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1004	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1005	6	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1-Dichloroethane by U.S. EPA Method 624												
MW-10	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-54	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-76	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total 1,2-Dichloroethene by U.S. EPA Method 624												
MW-10	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-27D	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-33S	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-41S	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-55	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-63	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-76	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-128	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-132	16	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane by U.S. EPA Method 624												
MW-10	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-72	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1005	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1,1-Trichloroethane by U.S. EPA Method 624												
MW-11	200	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	200	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	200	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbon tetrachloride by U.S. EPA Method 624												
MW-27D	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene by U.S. EPA Method 624												
MW-10	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

All Units are ug/l

MW = Monitoring Well

LOQ = Limit of quantitation

NE = Not established

P or PC = Identity previously confirmed

C = Analysis confirmed in second column analysis

NS = Well not part of the sampling program at the time of sampling, or well was not sampled for a particular analyte.

DL = Diluted out of the confirmation run

NC = Result was not confirmed in second column analysis

ND = Nothing detected

NR = Not reported

NA = Not analyzed

B = Compound detected in laboratory blank - not edited

APPENDIX. (continued)

Analyte Name	DOHS	U.S. EPA	Round 1	Round 2	Round 3	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
Well	Action	Primary	1985	1985	1986	1986	1987	1987	1987	1987	1988	1988	1988
Number	Level	MCL	6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88	4-6/88	7-9/88
Trichloroethene by U.S. EPA Method 624													
MW-11	5	5	NS	NS	NS	NS	NS	NS	NS	8000	NS	NS	NS
MW-12	5	5	NS	NS	NS	NS	NS	NS	NS	4700	NS	NS	NS
MW-14	5	5	NS	NS	NS	NS	NS	NS	NS	350	NS	NS	NS
MW-15	5	5	NS	NS	NS	NS	NS	NS	NS	1000	NS	NS	NS
MW-27D	5	5	NS	NS	NS	NS	NS	NS	NS	NS	55	NS	77
MW-33S	5	5	NS	NS	NS	NS	22000	21000	22000	NS	23000	NS	35000
MW-41S	5	5	NS	NS	NS	NS	NS	NS	NS	NS	220	NS	700
MW-53	5	5	NS	NS	NS	NS	NS	NS	NS	5.3	NS	NS	2.5
MW-55	5	5	NS	NS	NS	NS	NS	NS	NS	9.5	NS	NS	15
MW-59	5	5	NS	NS	NS	NS	NS	NS	NS	7.4	NS	NS	NS
MW-61	5	5	NS	NS	NS	NS	NS	NS	NS	NS	5.4	NS	6.6
MW-63	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	72
MW-72	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1100
MW-74	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-75	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-76	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-91	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-120	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-128	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-129	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-132	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-136	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1005	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1022	5	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene by U.S. EPA Method 624													
MW-41S	4	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-55	4	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Benzene by U.S. EPA Method 624													
MW-54	.7	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-102	.7	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium by U.S. EPA Method 200.7													
MW-12	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-31S	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-44S	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-101	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1018	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1019	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead by U.S. EPA Method 200.7													
MW-12	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1001	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1012	NE	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

All Units are ug/l

MW = Monitoring Well

LOQ = Limit of quantitation

NE = Not established

P or PC = Identity previously confirmed

C = Analysis confirmed in second column analysis

NS = Well not part of the sampling program at the time of sampling, or well was not sampled for a particular analyte.

DL = Diluted out of the confirmation run

NC = Result was not confirmed in second column analysis

ND = Nothing detected

NR = Not reported

NA = Not analyzed

B = Compound detected in laboratory blank - not edited

APPENDIX. (continued)

Analyte Name	DOHS	U.S. EPA	Round 1	Round 2	Round 3	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
Well	Action	Primary	1985	1985	1986	1986	1987	1987	1987	1987	1988	1988	1988
Number	Level	MCL	6/85	11-12/85	2-4/86	9-12/86	1-3/87	4-6/87	7-9/87	9-12/87	1-3/88	4-6/88	7-9/88
Mercury by U.S. EPA Method 200.7													
MW-44S	NE	2	NS	NS	ND	NS	2	NS	NS	NS	NS	ND	ND
Silver by U.S. EPA Method 200.7	NE	50	NS	ND	ND	NS	NS	270	NS	NS	ND	NS	ND
Barium by U.S. EPA Method 200.7	NE	1000	NS	NS	100	1000	NS	ND	NS	NS	NS	NS	ND

All Units are ug/l

MW = Monitoring Well

LOQ = Limit of quantitation

NE = Not established

P or PC = Identity previously confirmed

C = Analysis confirmed in second column analysis

NS = Well not part of the sampling program at the time of sampling, or well was not sampled for a particular analyte.

DL = Diluted out of the confirmation run

NC = Result was not confirmed in second column analysis

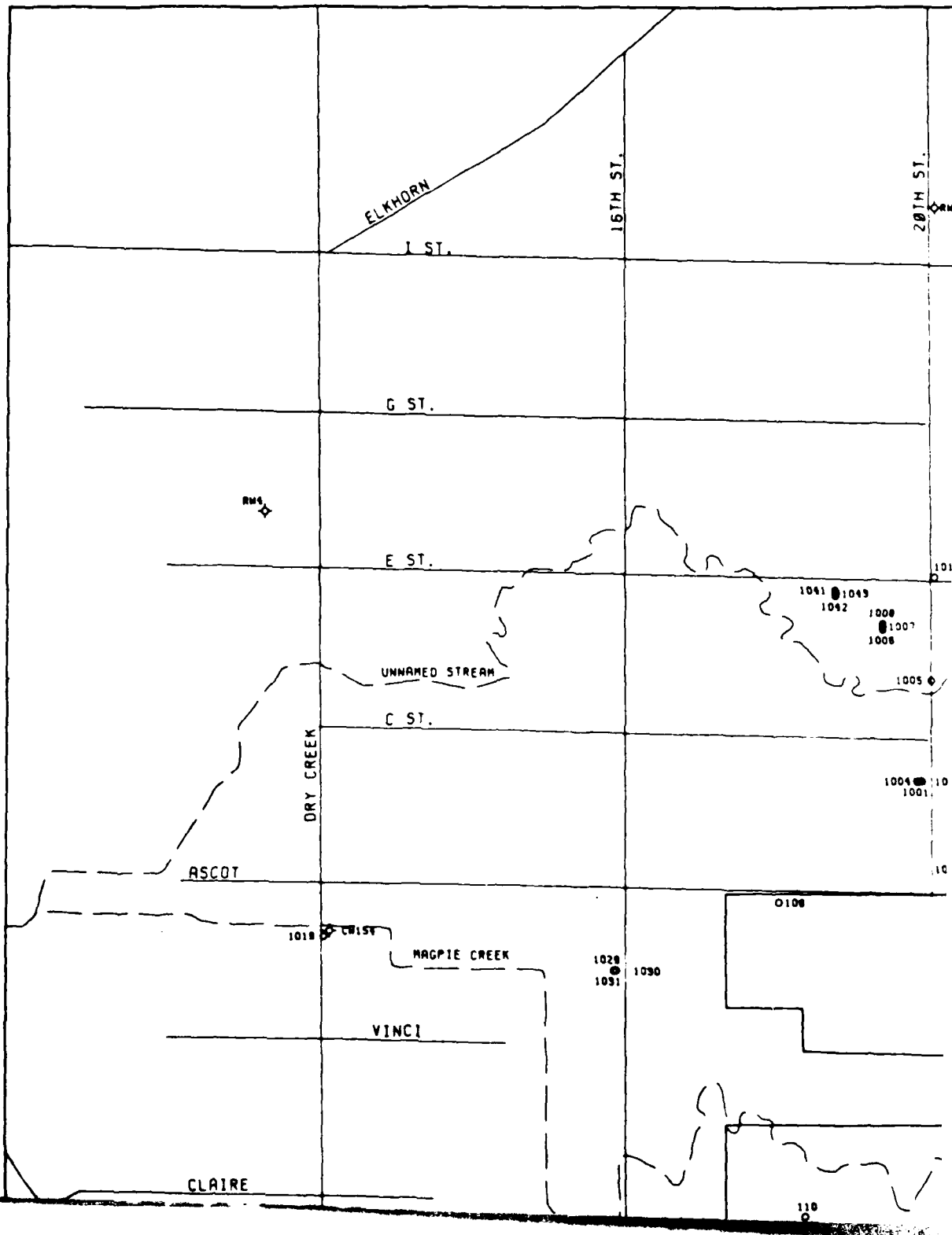
ND = Nothing detected

NR = Not reported

NA = Not analyzed

B = Compound detected in laboratory blank - not edited

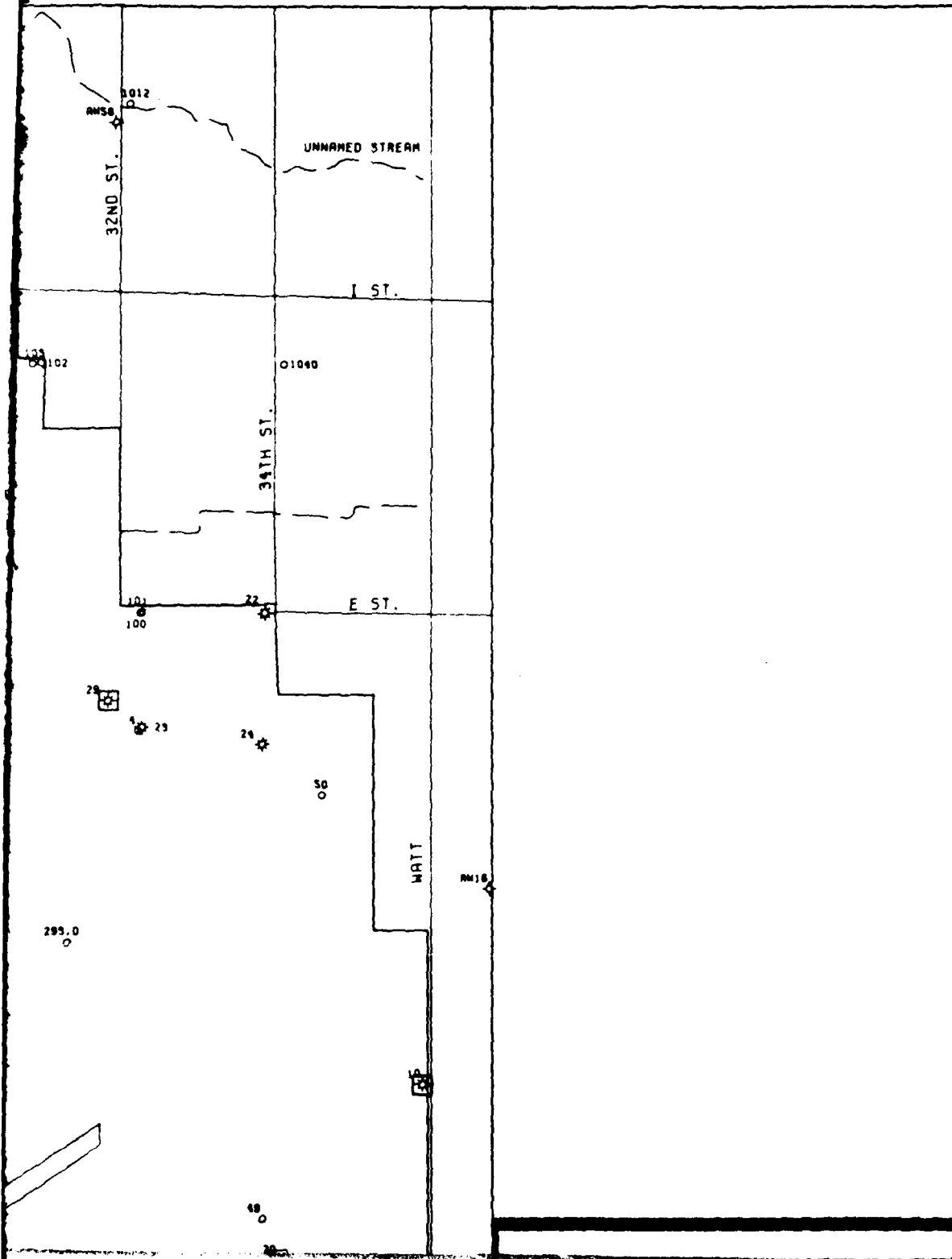
11

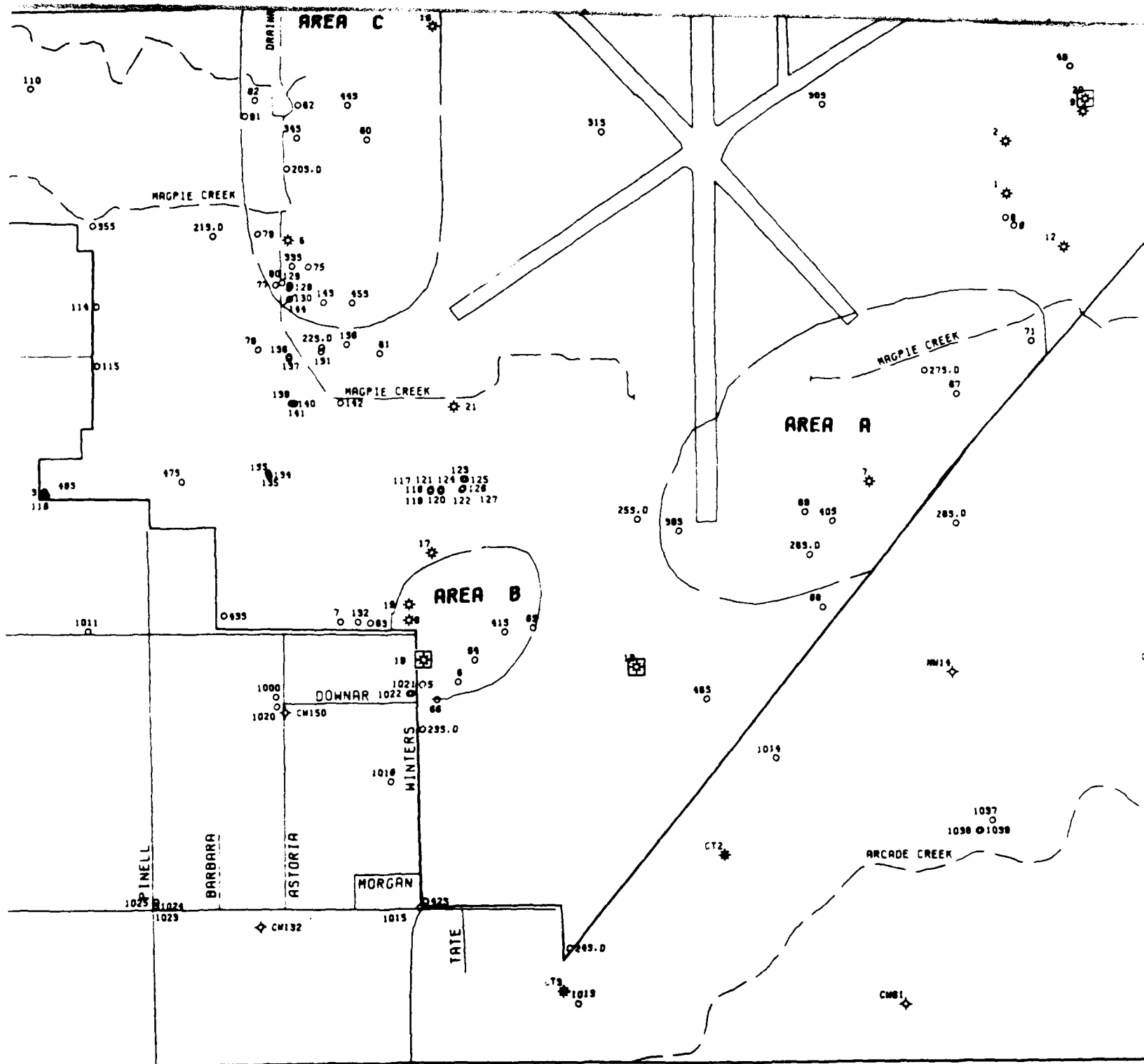


The map displays a city grid with streets labeled 20TH ST., 22ND ST., 24TH ST., 26TH ST., 32ND ST., and 34TH ST. Avenues 1, 2, 3, 4, and 5 are also indicated. Numerous numbered points are scattered across the grid, including 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200.

Two specific areas are highlighted: **AREA D** is a cluster of points near the intersection of 22nd St and 1st Ave, and **AREA C** is a large area near the intersection of 34th St and 5th Ave. The map also shows a **DRAINAGE CHANNEL** and a **UNNAMED** area.

3.





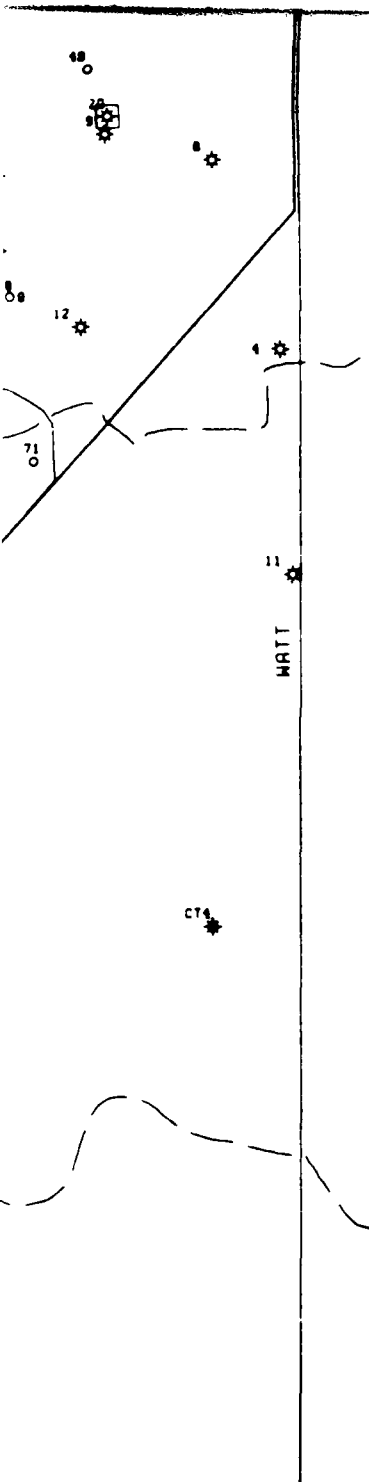


PLATE 1.

WELL LOCATION MAP

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

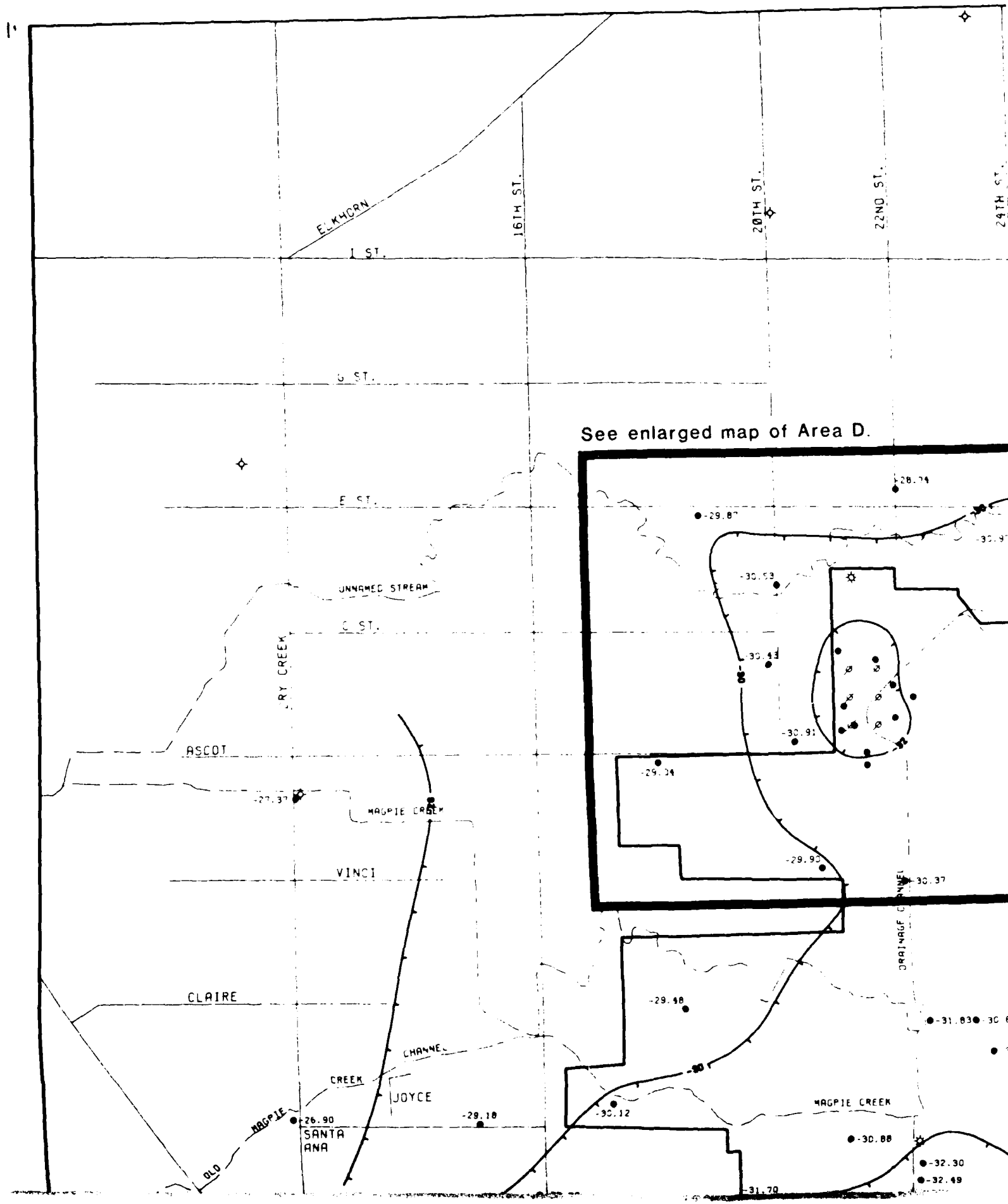
- McCLELLAN AFB BOUNDARY
- - - STREAMS
- - - BOUNDARIES OF PAST DISPOSAL STORAGE SITES
- MONITORING WELL
- EXTRACTION WELL
- BASE PRODUCTION WELLS
- ACTIVE WATER SUPPLY WELL
- INACTIVE AT PRESENT
- ◇ MUNICIPAL WATER SUPPLY WELLS
- CW CITY OF SACRAMENTO
- NW NORTHRIDGE WATER DISTRICT
- RW RIO LINDA WATER DISTRICT
- AW ARCADE WATER DISTRICT
- ★ IRRIGATION WELLS
- CT CALTRANS



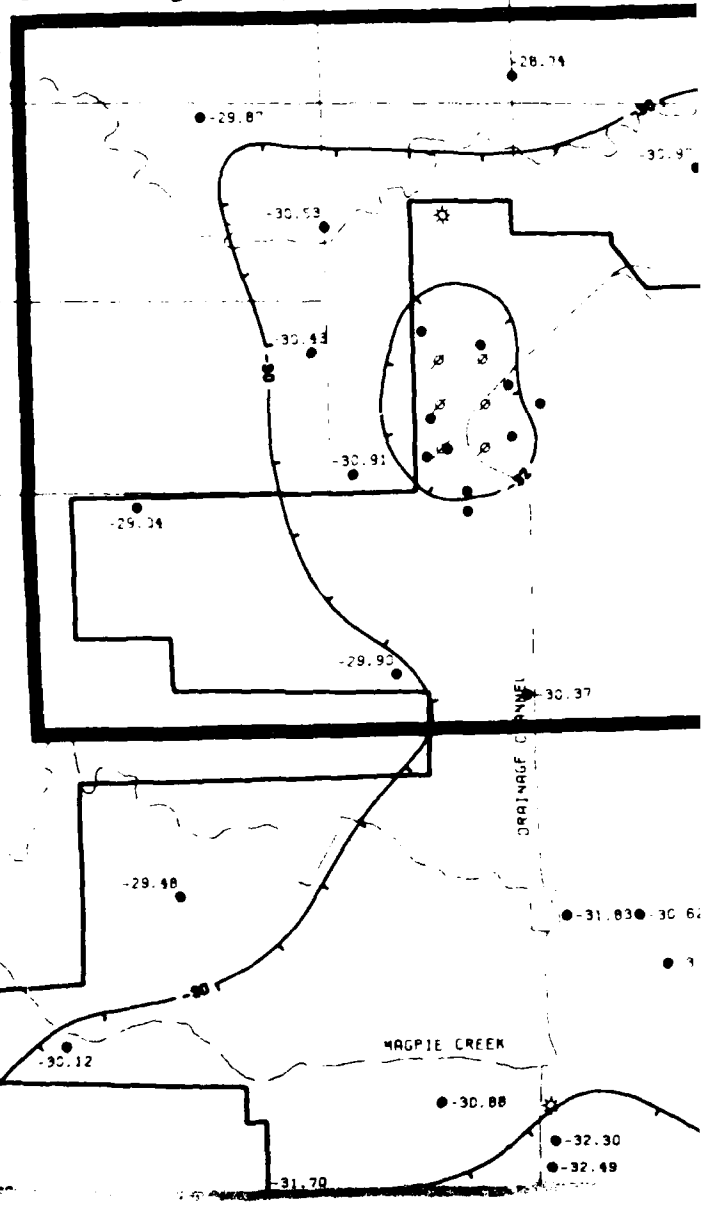
0 500 1000
SCALE IN FEET

GENERATED BY	<i>Walter G. Giddens</i>	DATE	1-12-88
PEER REVIEW	<i>Julia P. Thompson</i>	DATE	10-12-88
PROJECT REVIEW	<i>Deena A. Semel</i>	DATE	10/12/88

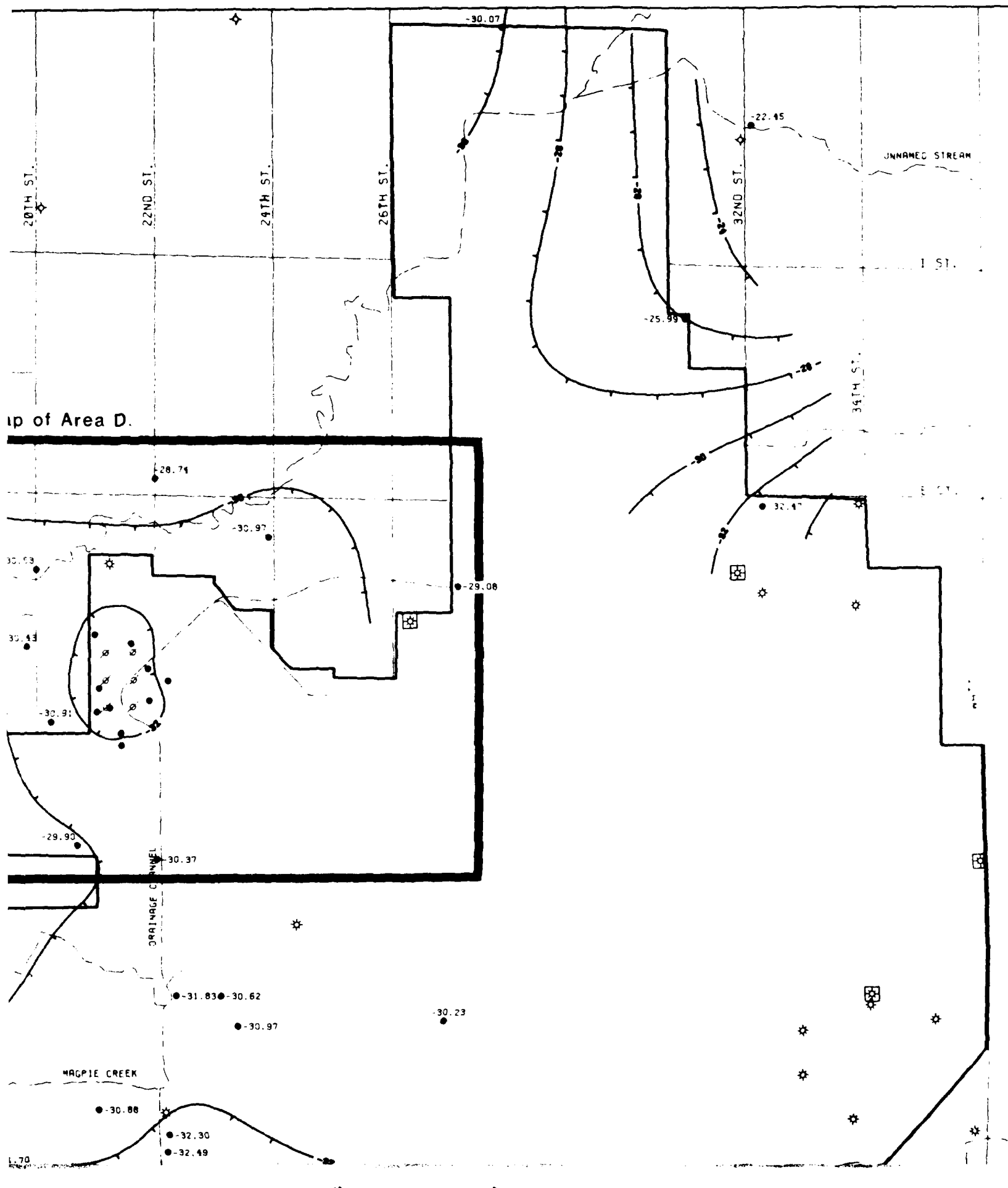
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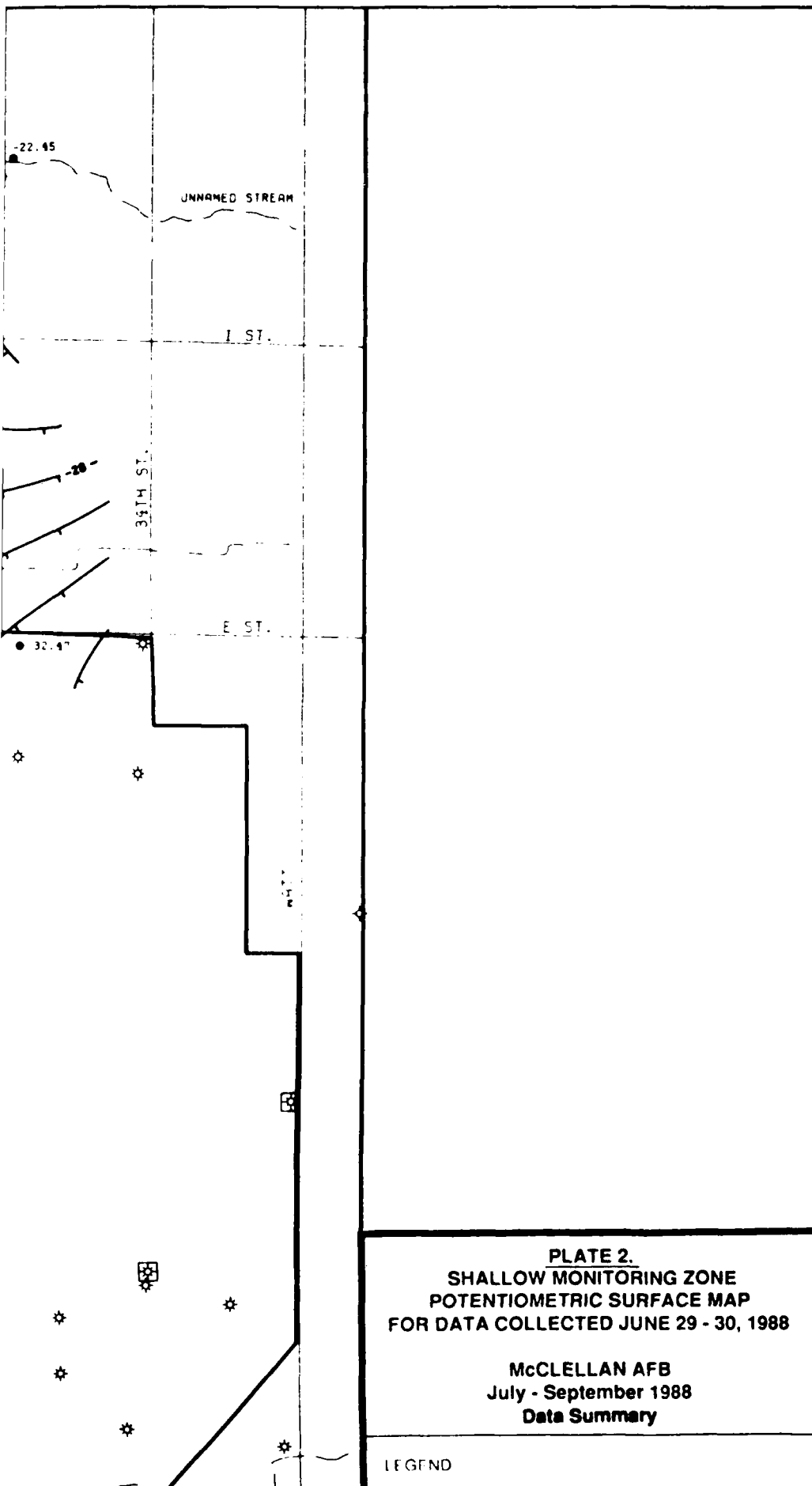


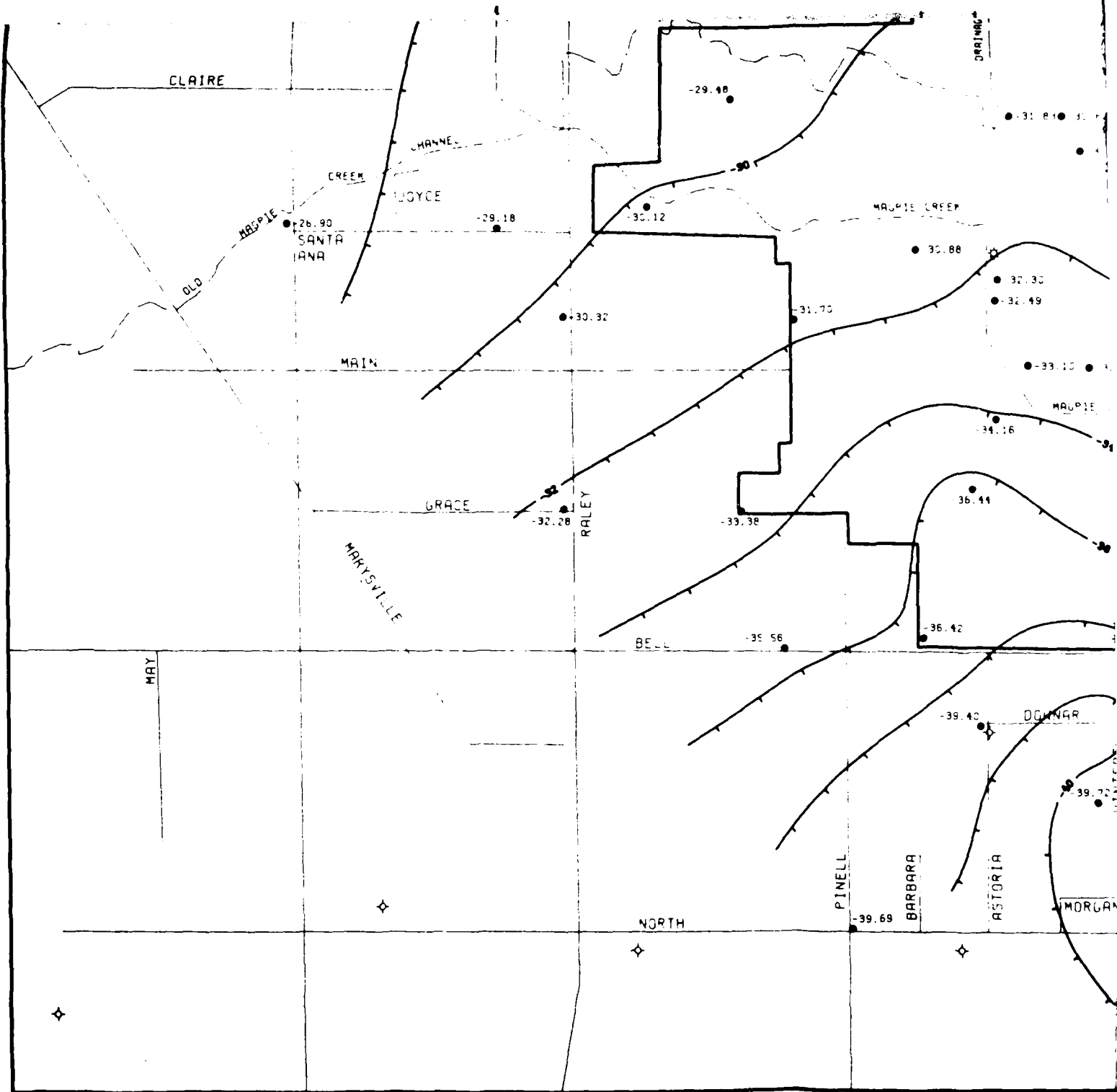
See enlarged map of Area D.



2.







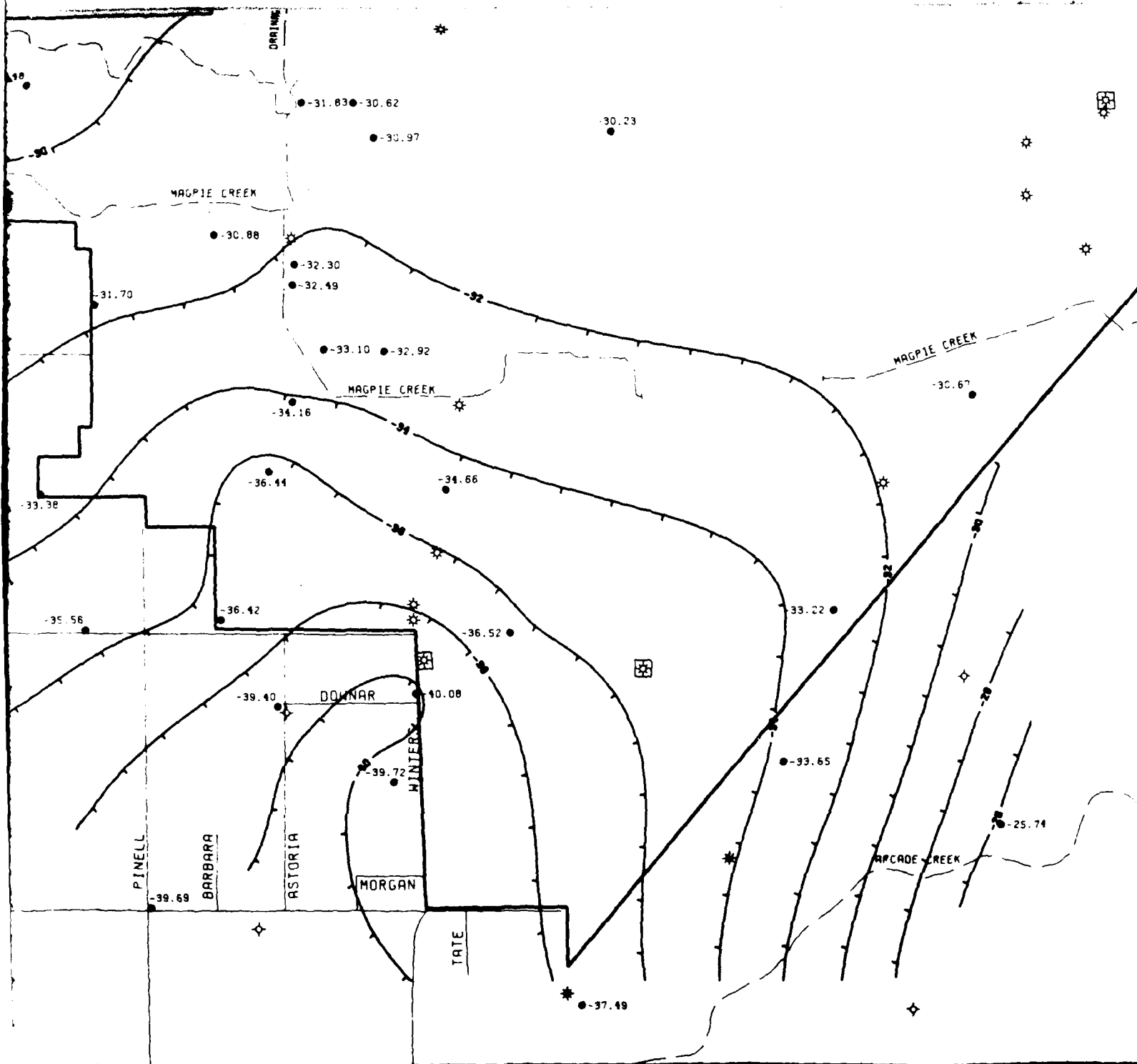


PLATE 2.
SHALLOW MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED JUNE 29 - 30, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

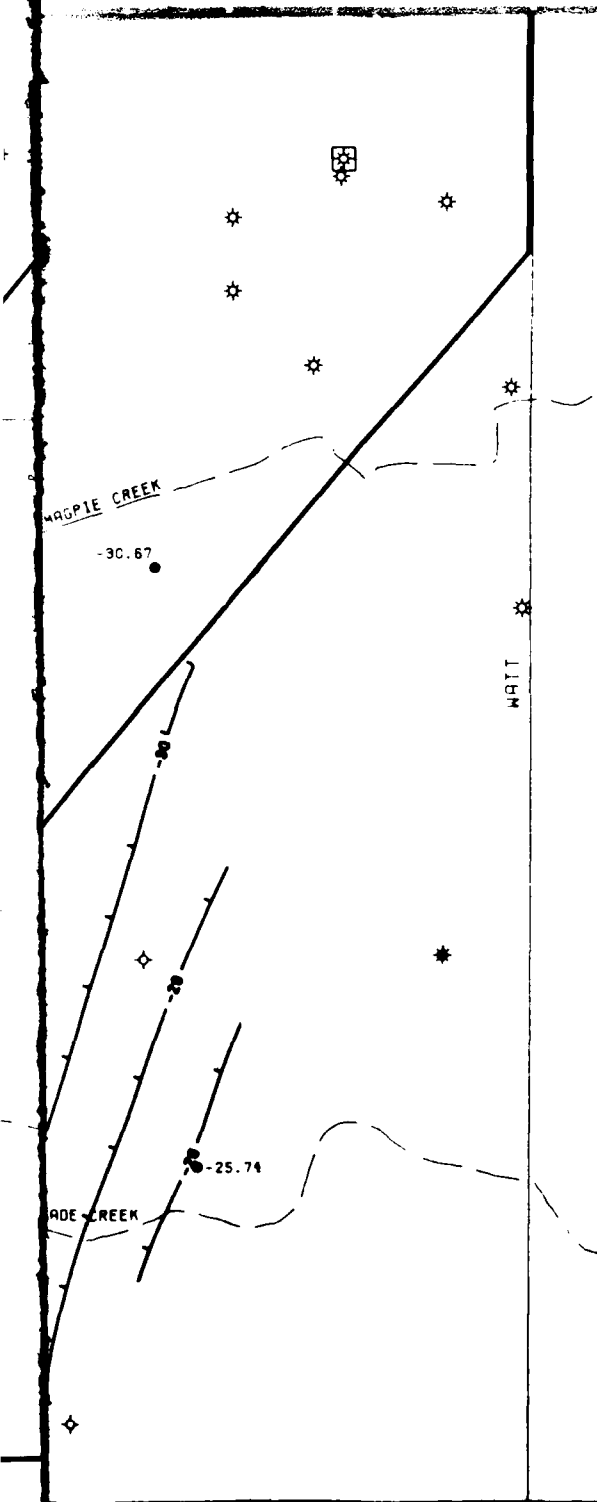
- McCLELLAN AFB BOUNDARY
- ~ STREAMS
- 30 - POTENTIOMETRIC CONTOUR LINE AND ELEVATION (FT. MSL)
- SHALLOW ZONE MONITORING WELL
- ⊗ INACTIVE BASE PRODUCTION WELL
- ⊠ ACTIVE BASE PRODUCTION WELL
- ⋄ CITY WELL
- ✱ CALTRANS WELL
- ⌘ EXTRACTION WELL

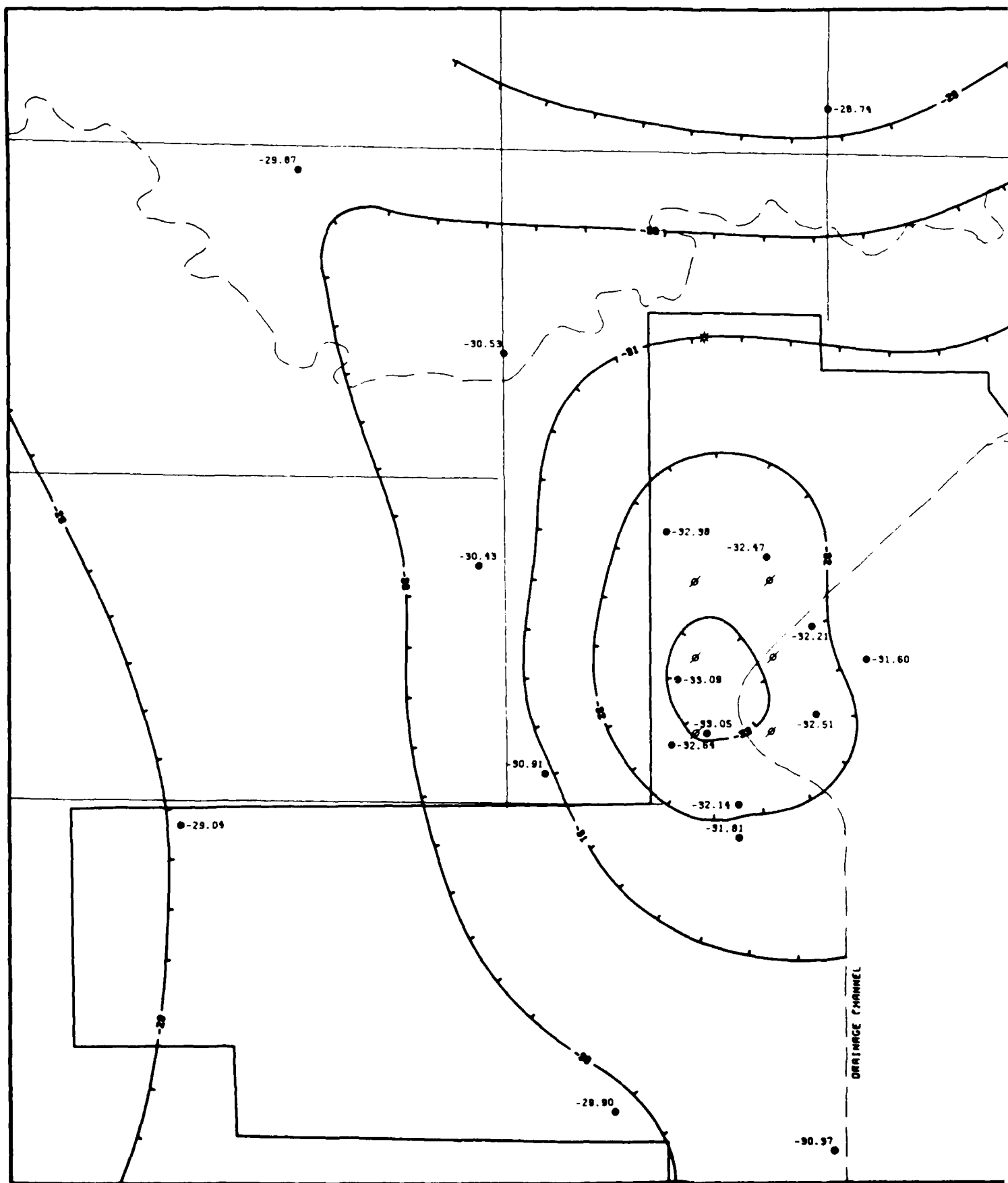


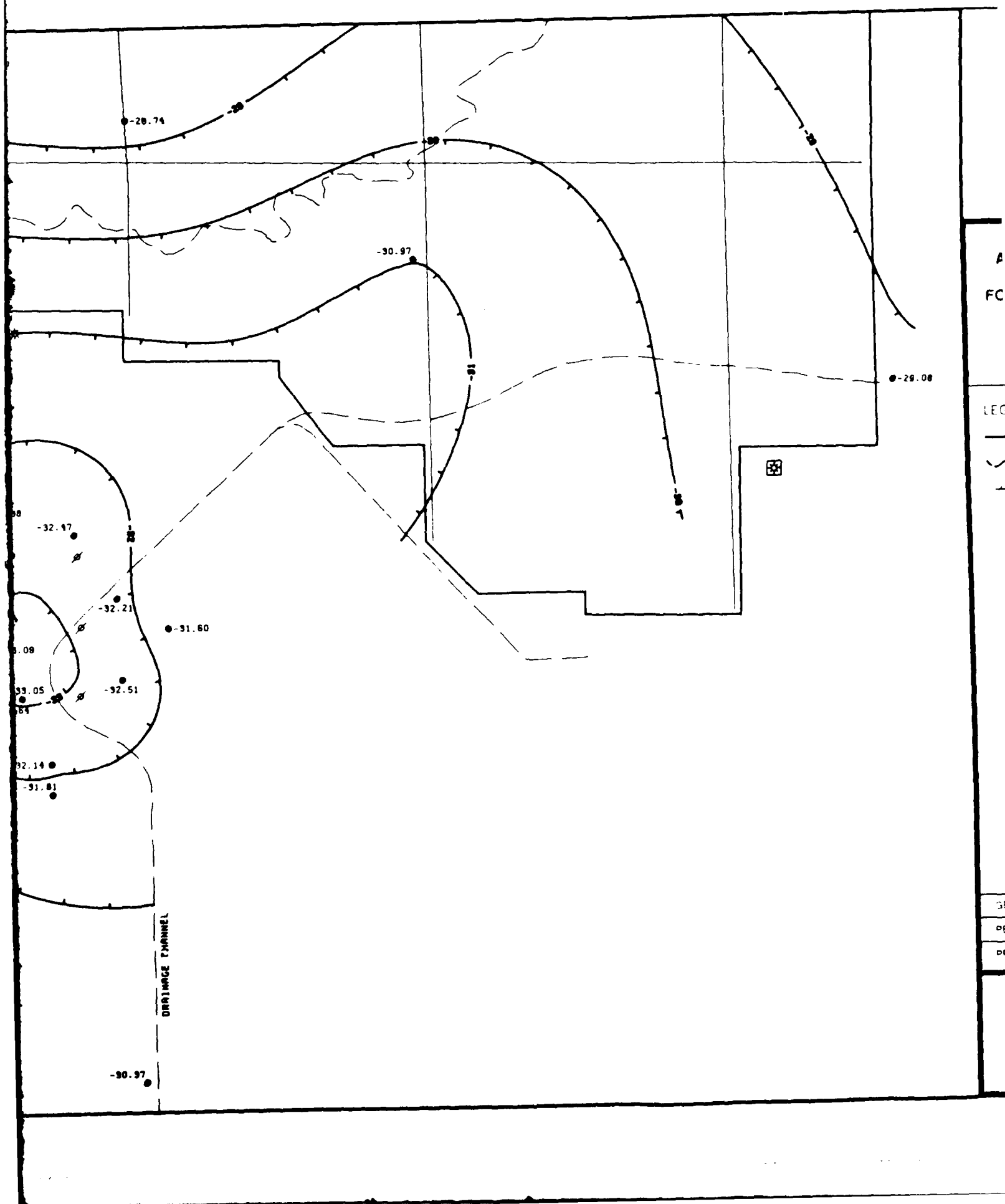
0 500 1000
SCALE IN FEET

GENERATED BY	<i>Deana G. Stanley</i>	DATE	11-12-88
PEER REVIEW	<i>John P. Thompson</i>	DATE	12-12-88
PROJECT REVIEW	<i>Deana G. Stanley</i>	DATE	10/12/89

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PLATE 3.
AREA D - SHALLOW MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED JUNE 29 - 30, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

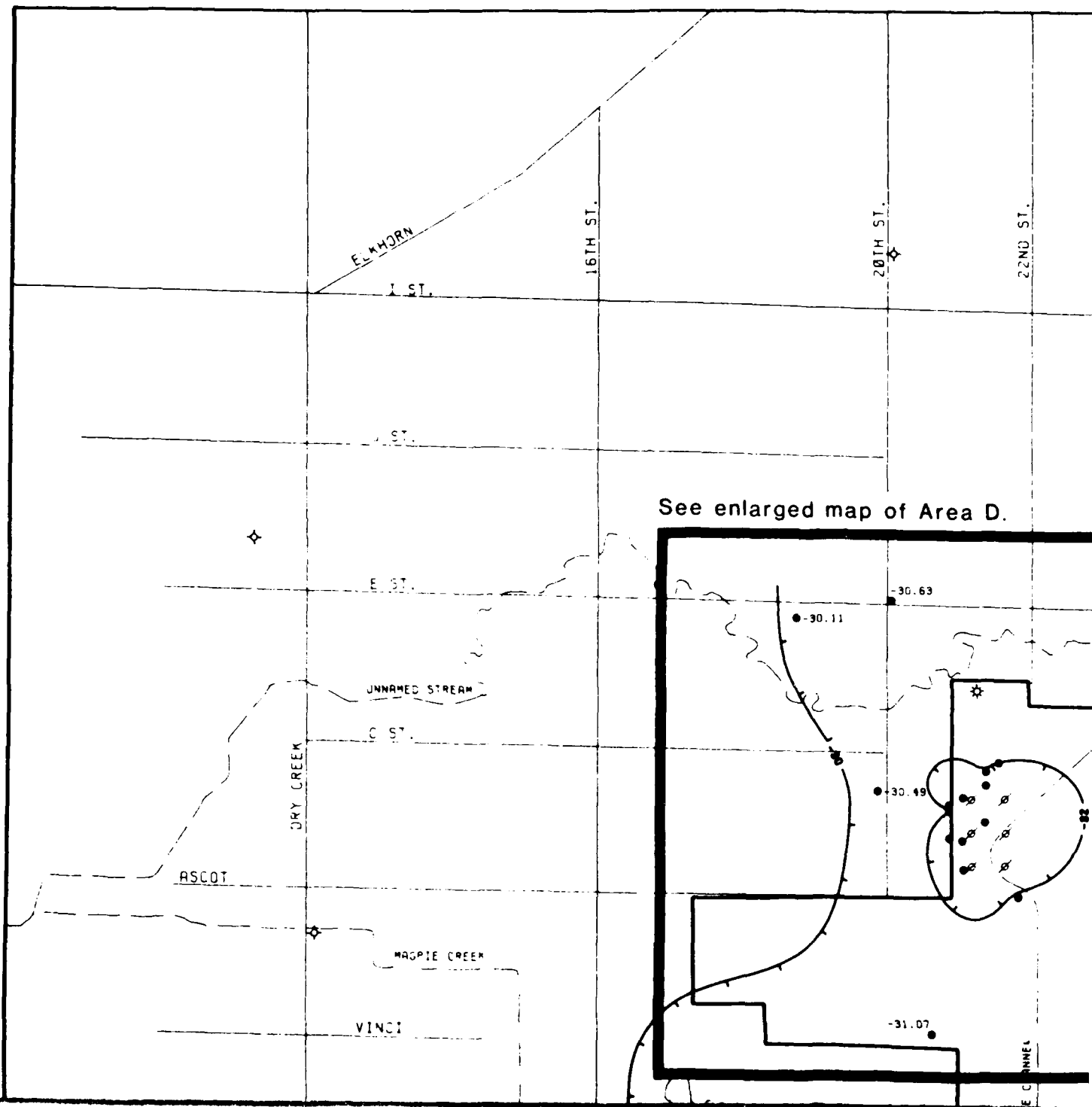
-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE
AND ELEVATION / FT. MSL
-  SHALLOW ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  EXTRACTION WELL

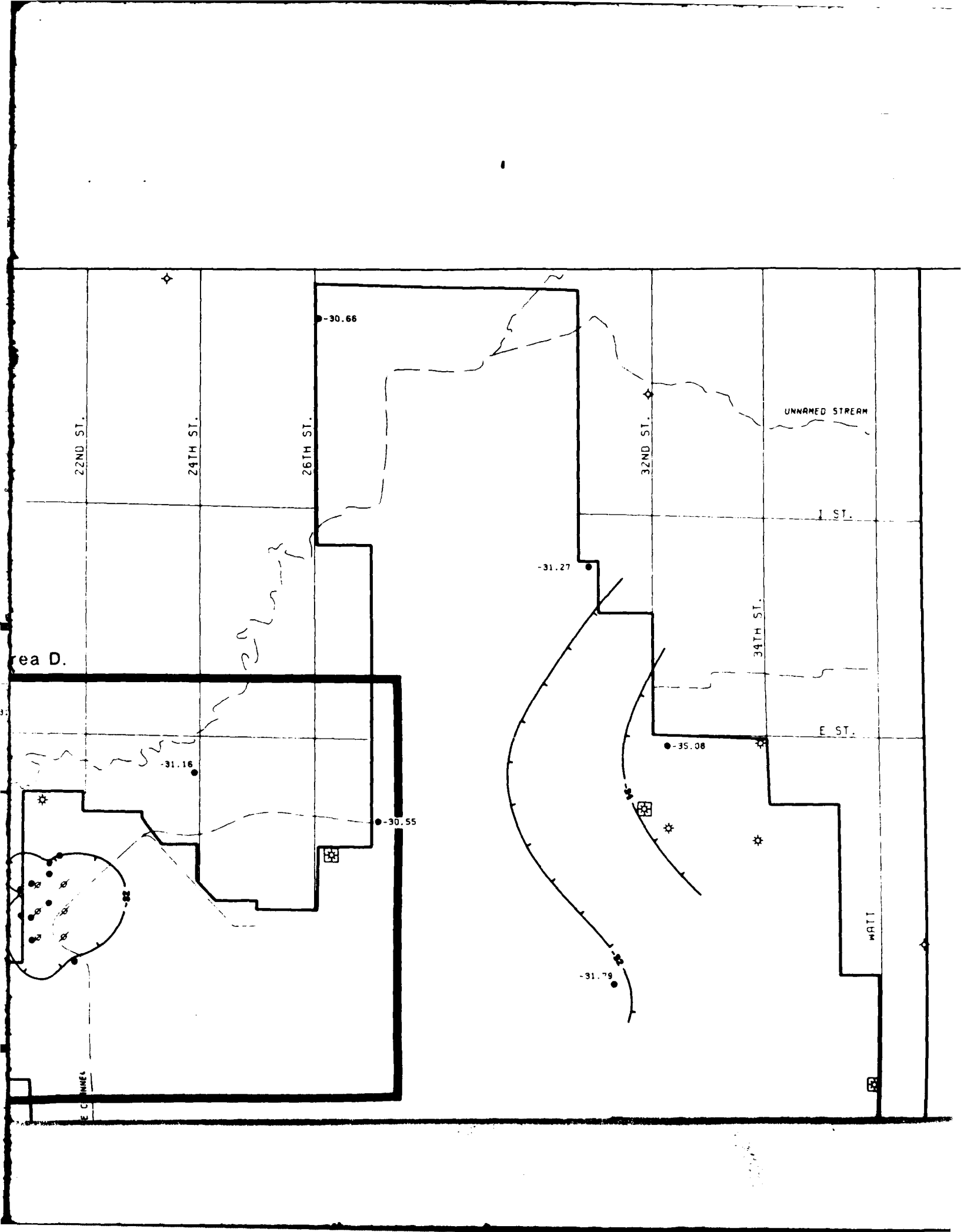


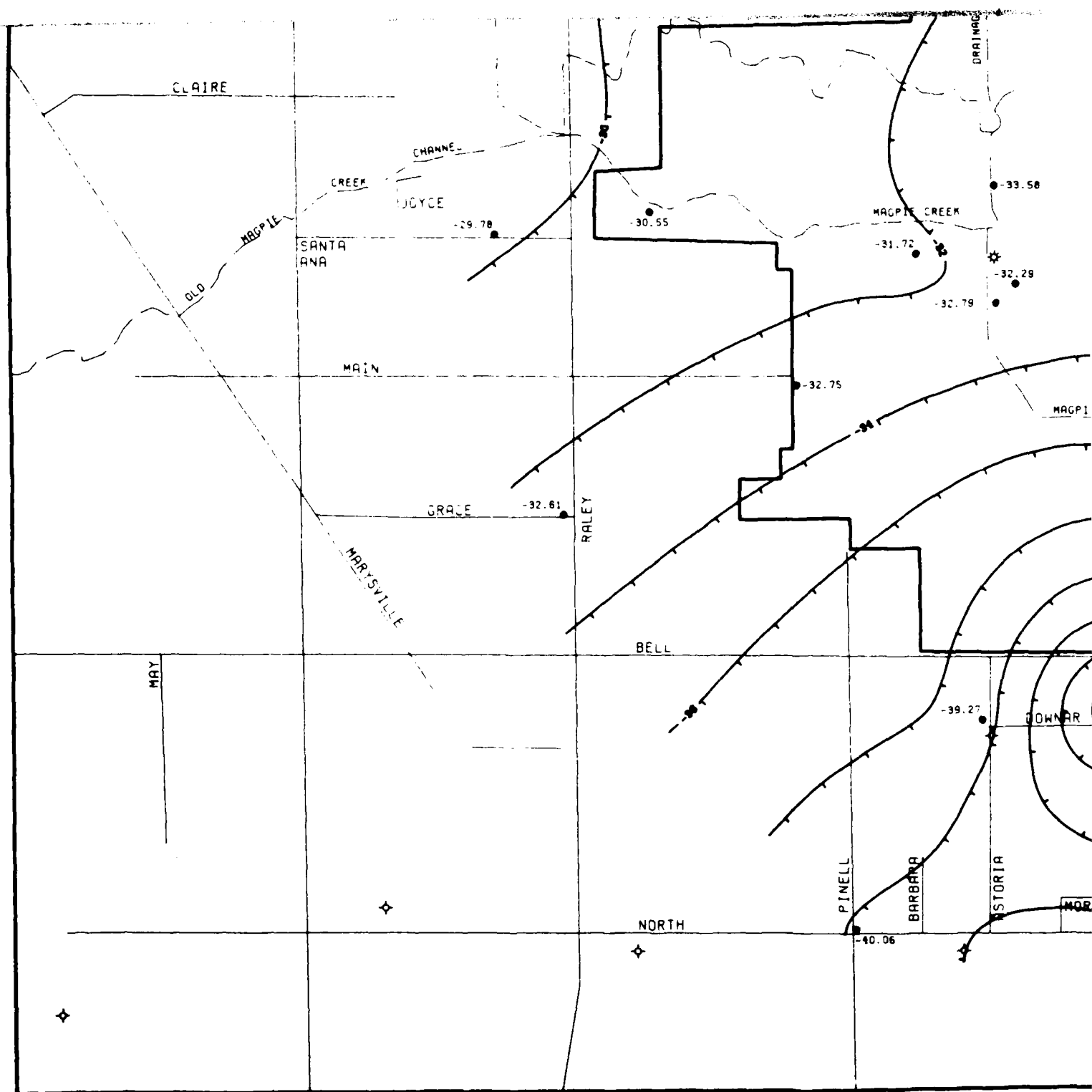
0 200 400
 SCALE IN FEET

GENERATED BY *[Signature]* DATE *1-12-88*
 PEER REVIEW *[Signature]* DATE *11-12-88*
 PROJECT REVIEW *[Signature]* DATE *10/12/88*

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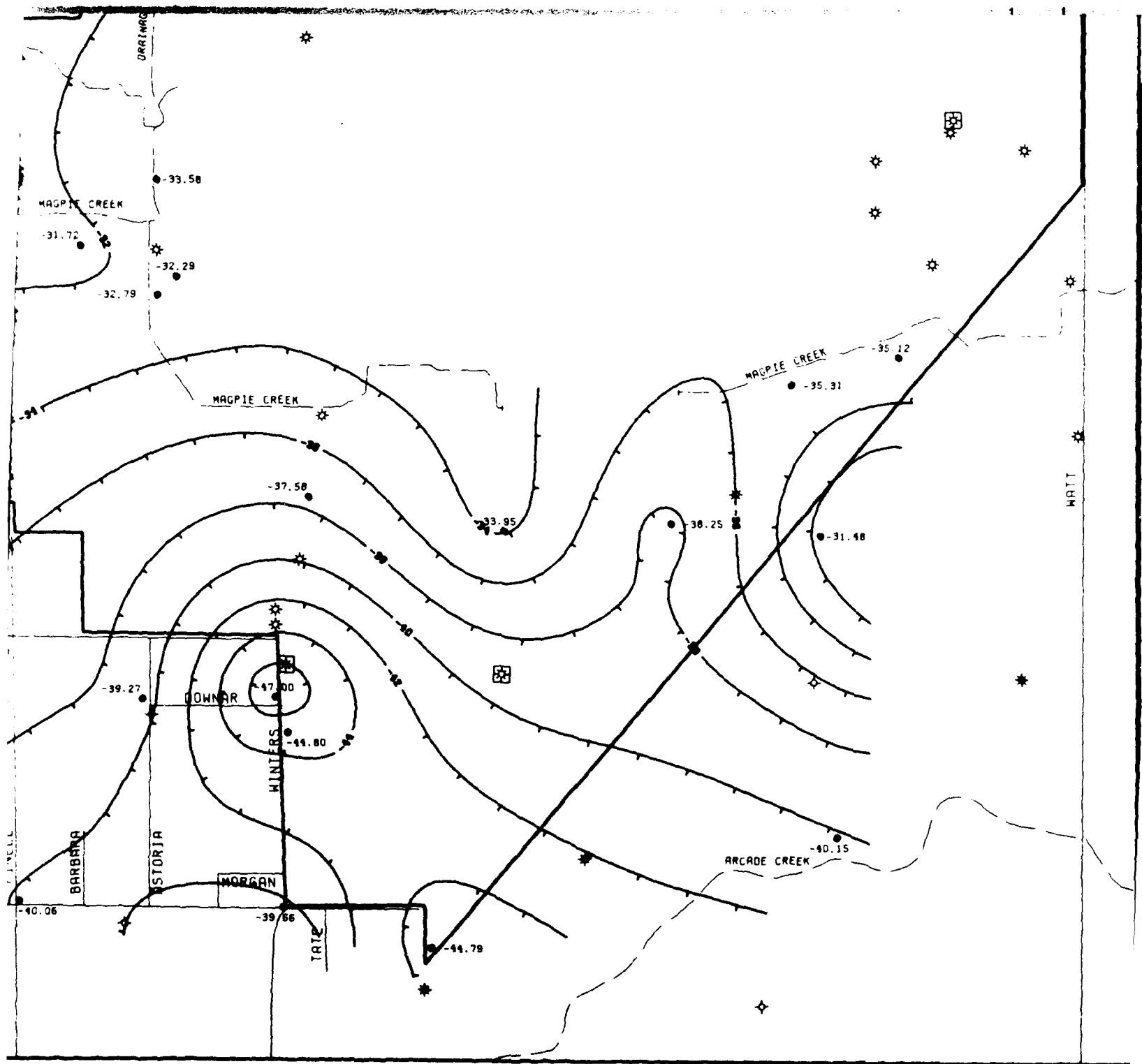


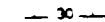








PLATE 4.
MIDDLE MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED JUNE 29 - 30, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
-  MIDDLE ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  CITY WELL
-  CALTRANS WELL
-  EXTRACTION WELL

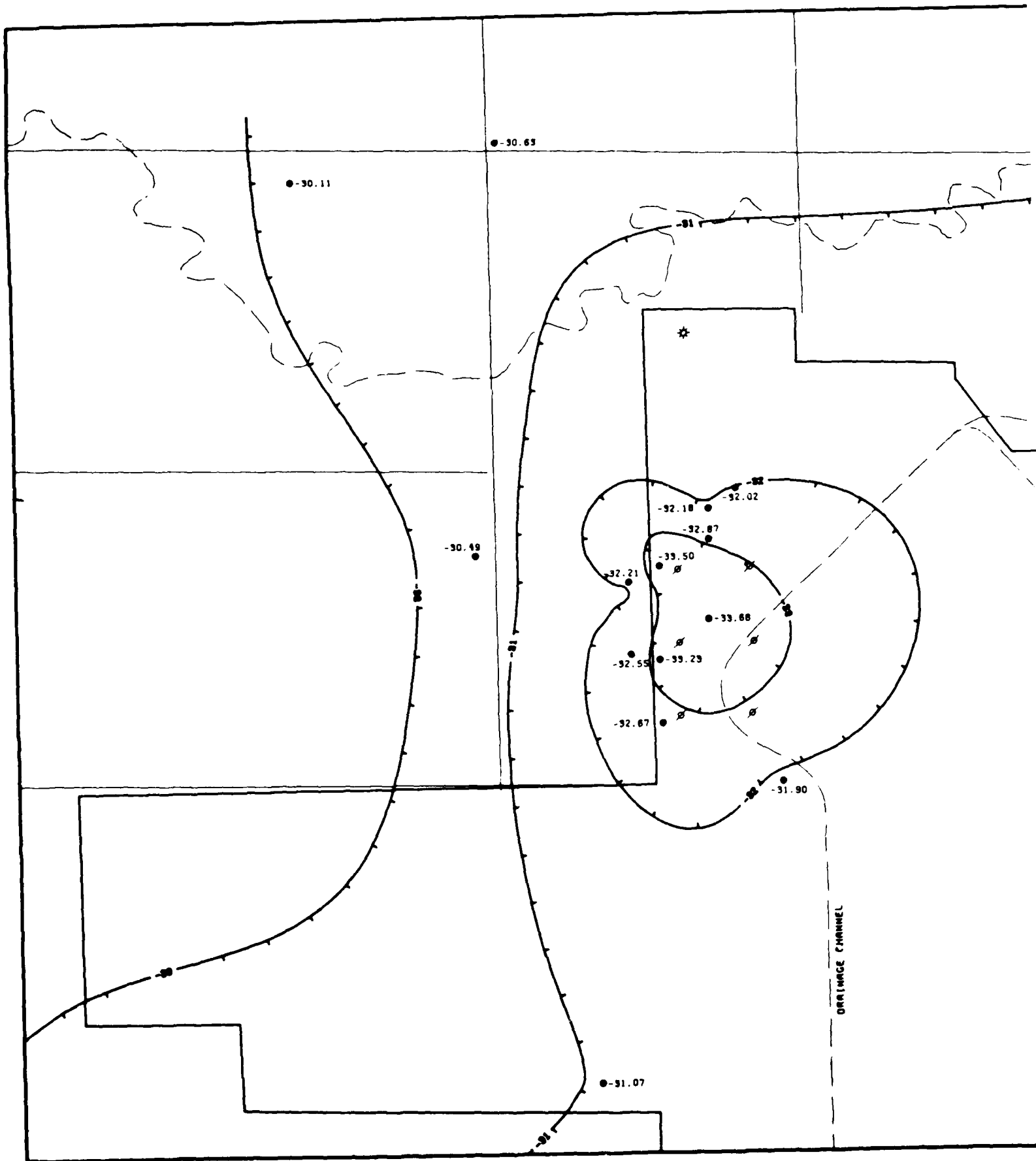


0 500 1000

 SCALE IN FEET

GENERATED BY <i>William J. Zide</i>	DATE <i>12-88</i>
PEER REVIEW <i>William P. Thompson</i>	DATE <i>12-13-88</i>
PROJECT REVIEW <i>Diana A. Stanley</i>	DATE <i>10/12/88</i>

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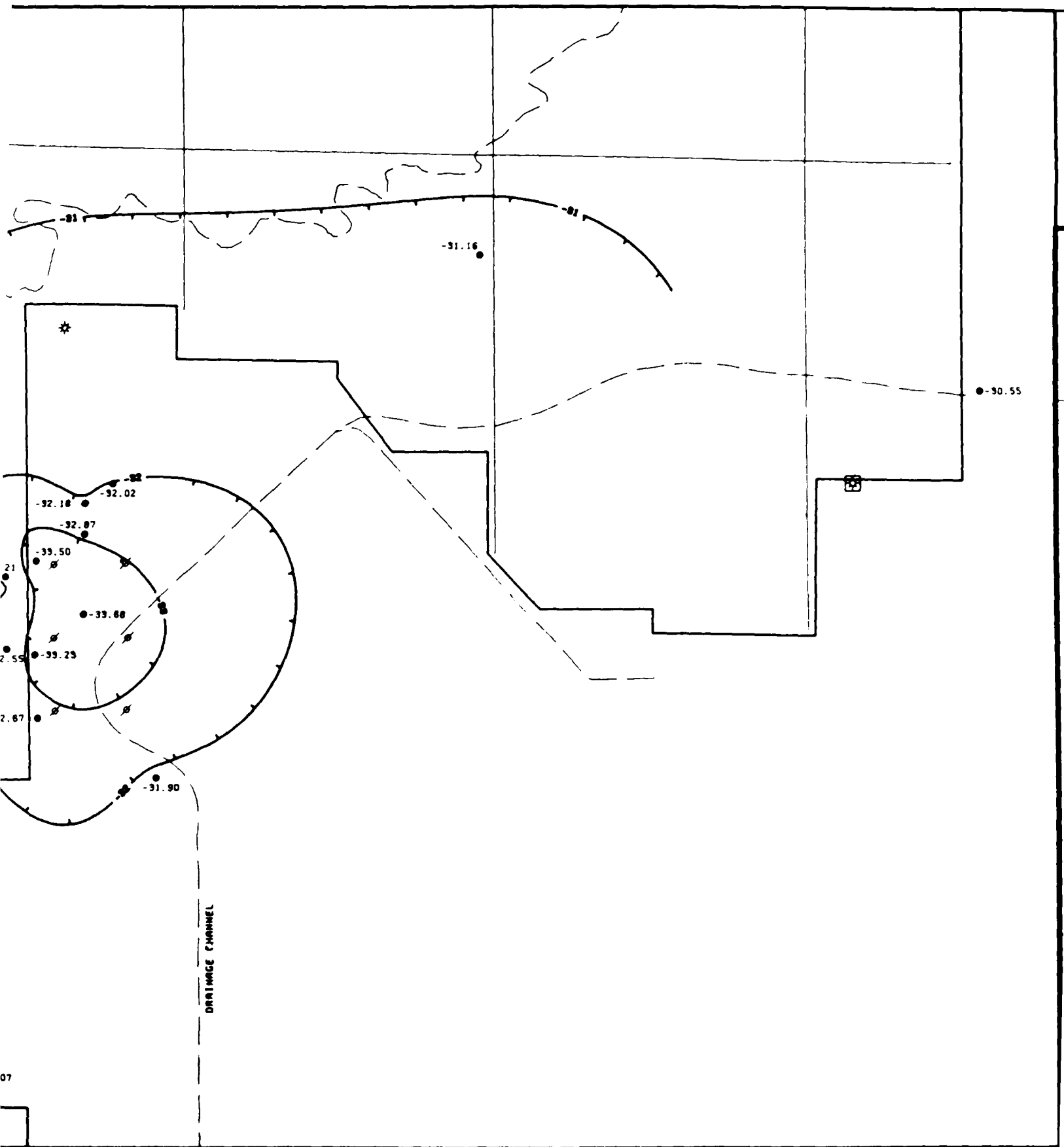









PLATE 5.
AREA D - MIDDLE MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED JUNE 29 - 30, 1988

McCLELLAN AFB
July - September 1988
Data Summary

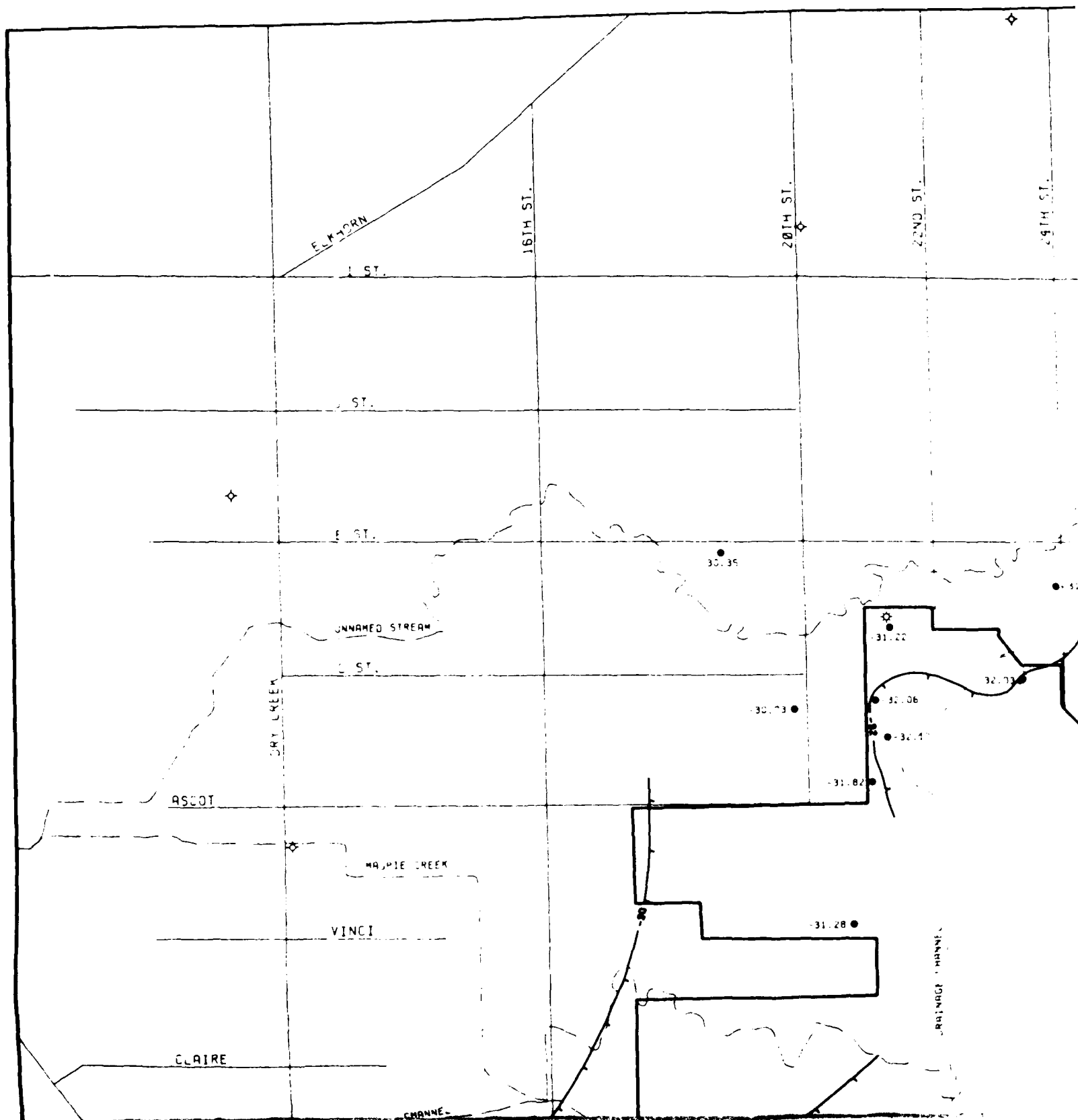
LEGEND

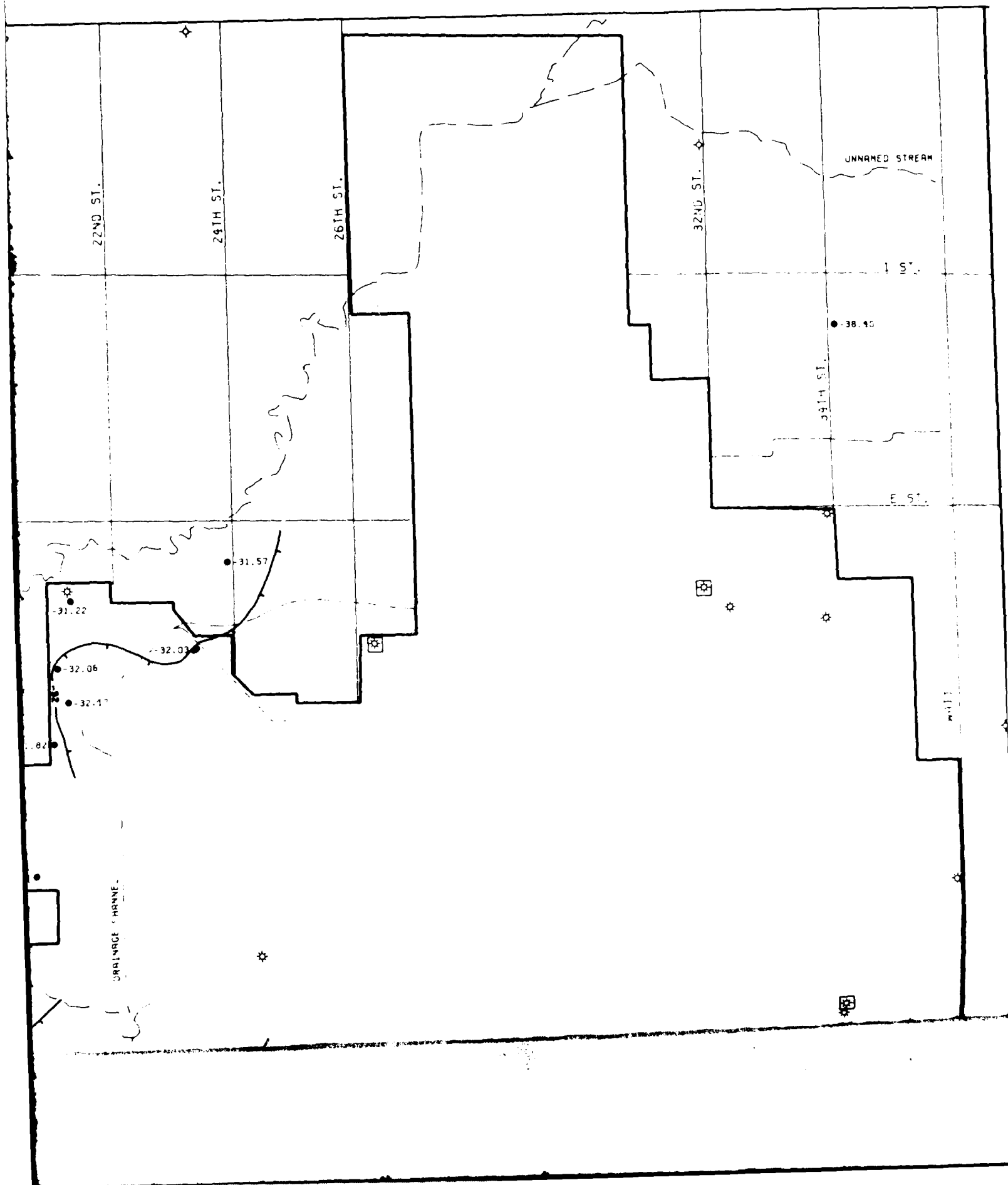
-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
-  MIDDLE ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  EXTRACTION WELL

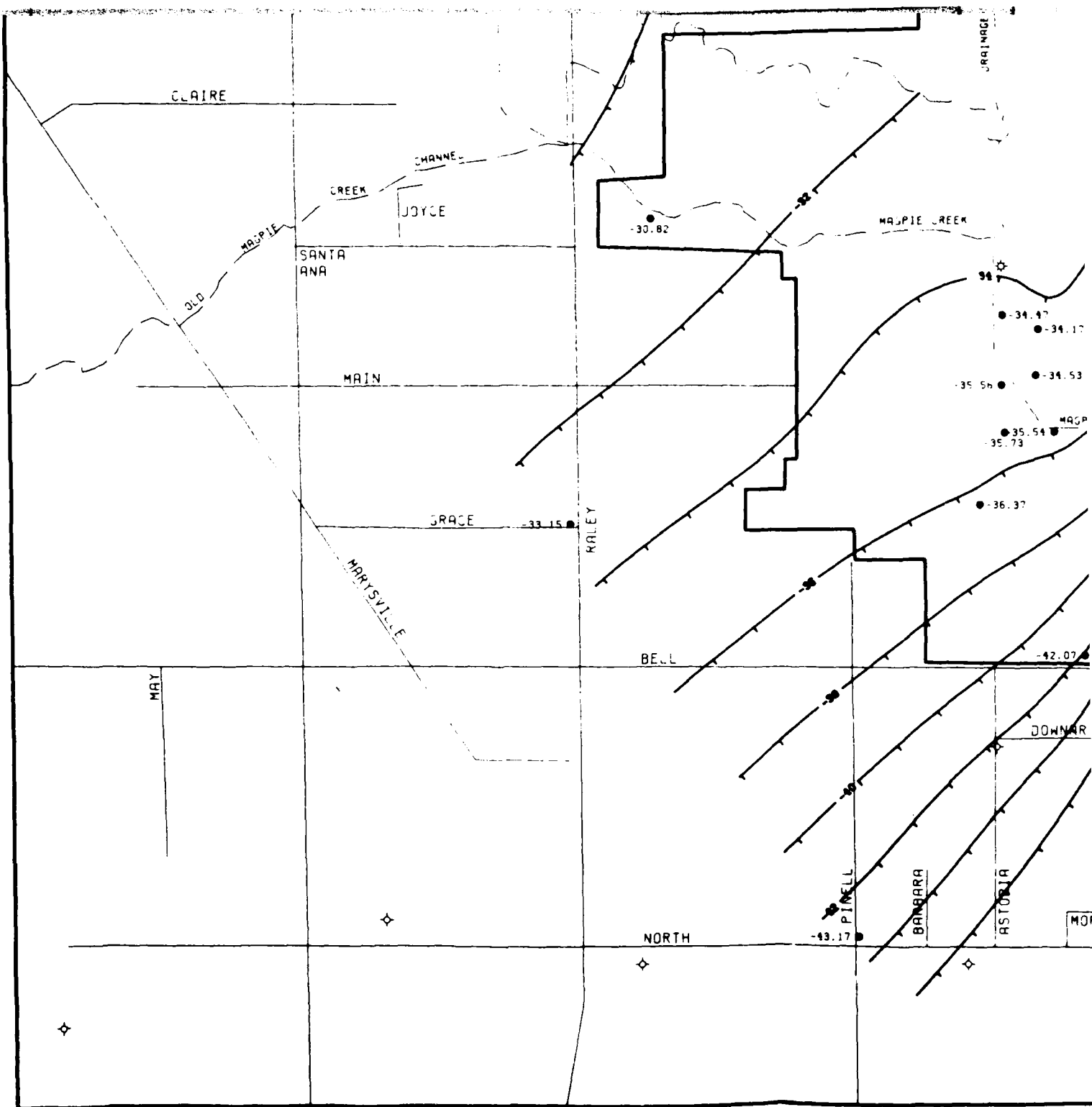


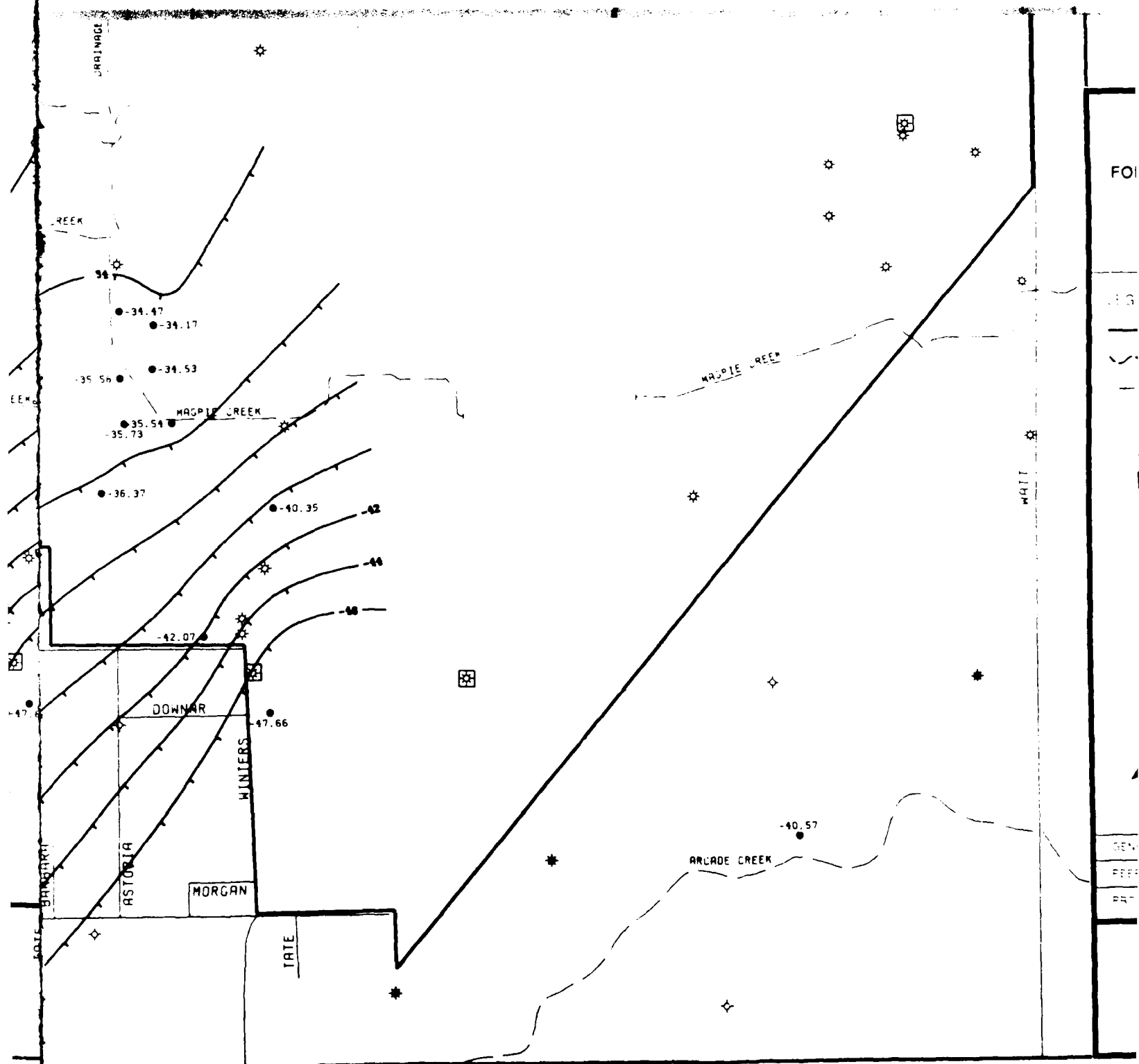
GENERATED BY <i>W. J. K. Smith</i>	DATE <i>10-12-88</i>
PEER REVIEW <i>John P. Thompson</i>	DATE <i>10-12-88</i>
PROJECT REVIEW <i>James J. Jenkins</i>	DATE <i>10/12/88</i>

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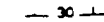






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PLATE 6.
DEEP MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED JUNE 29 - 30, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE AND ELEVATION (FT. MSL)
-  DEEP ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  CITY WELL
-  CALTRANS WELL
-  EXTRACTION WELL

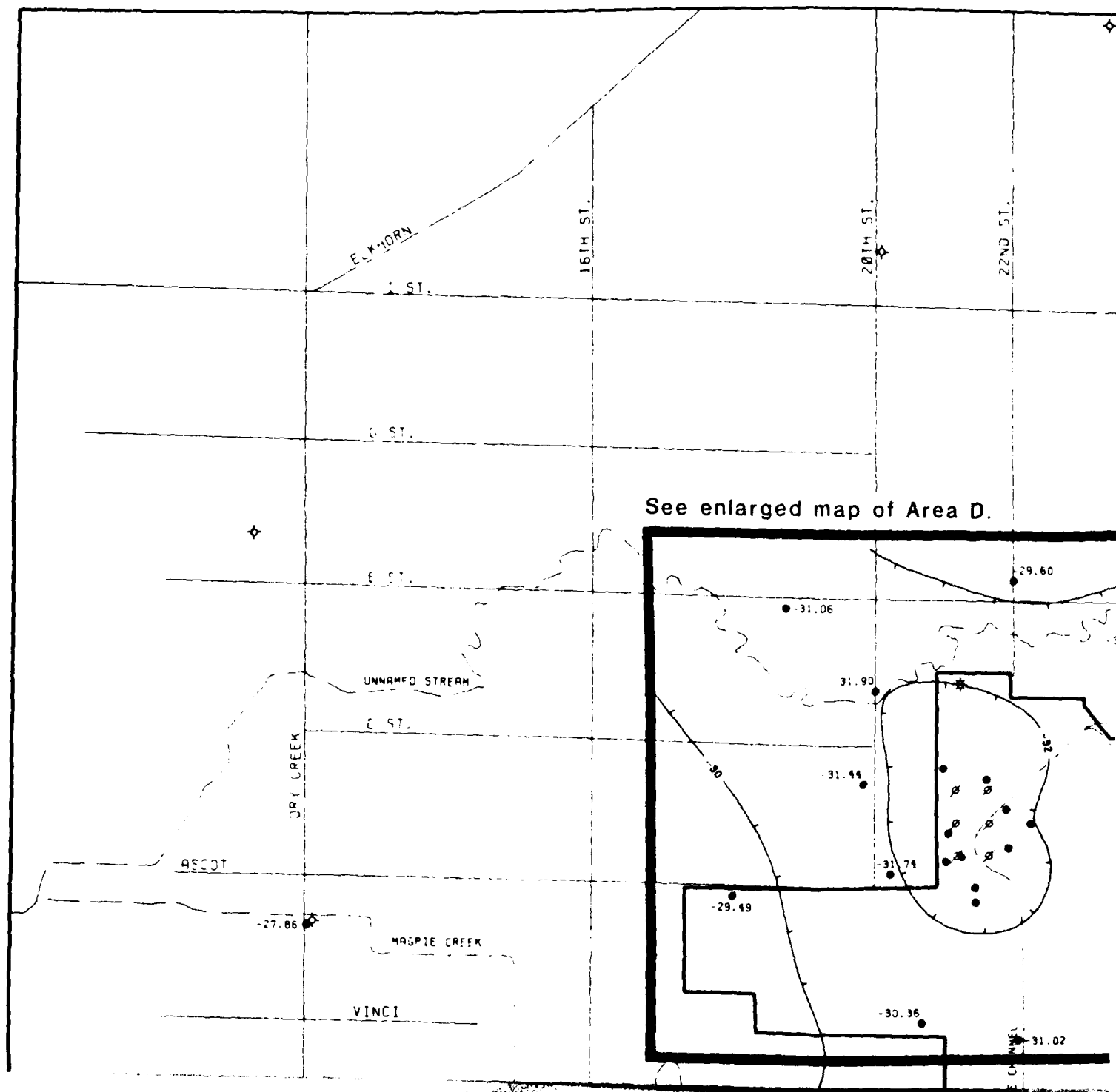


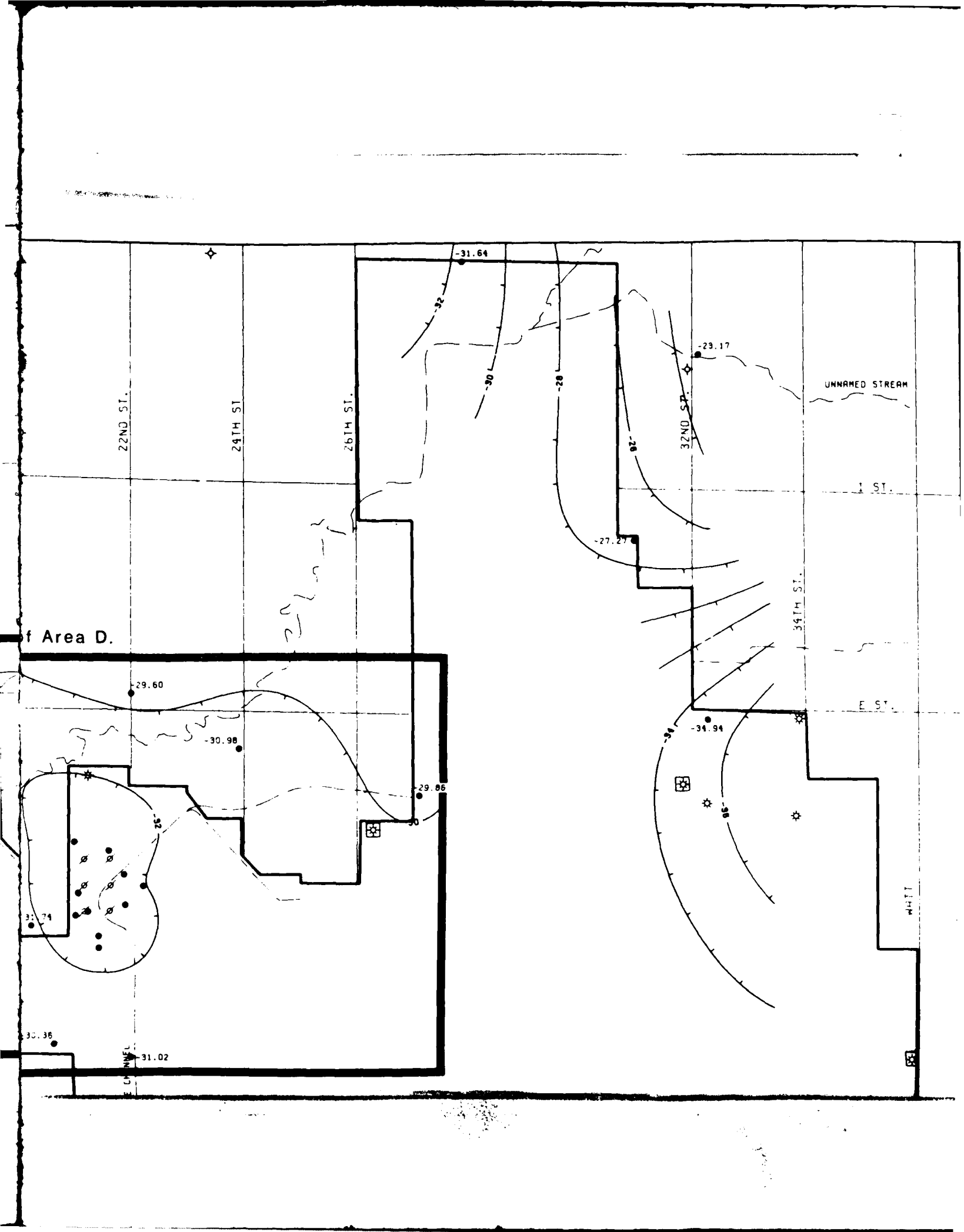
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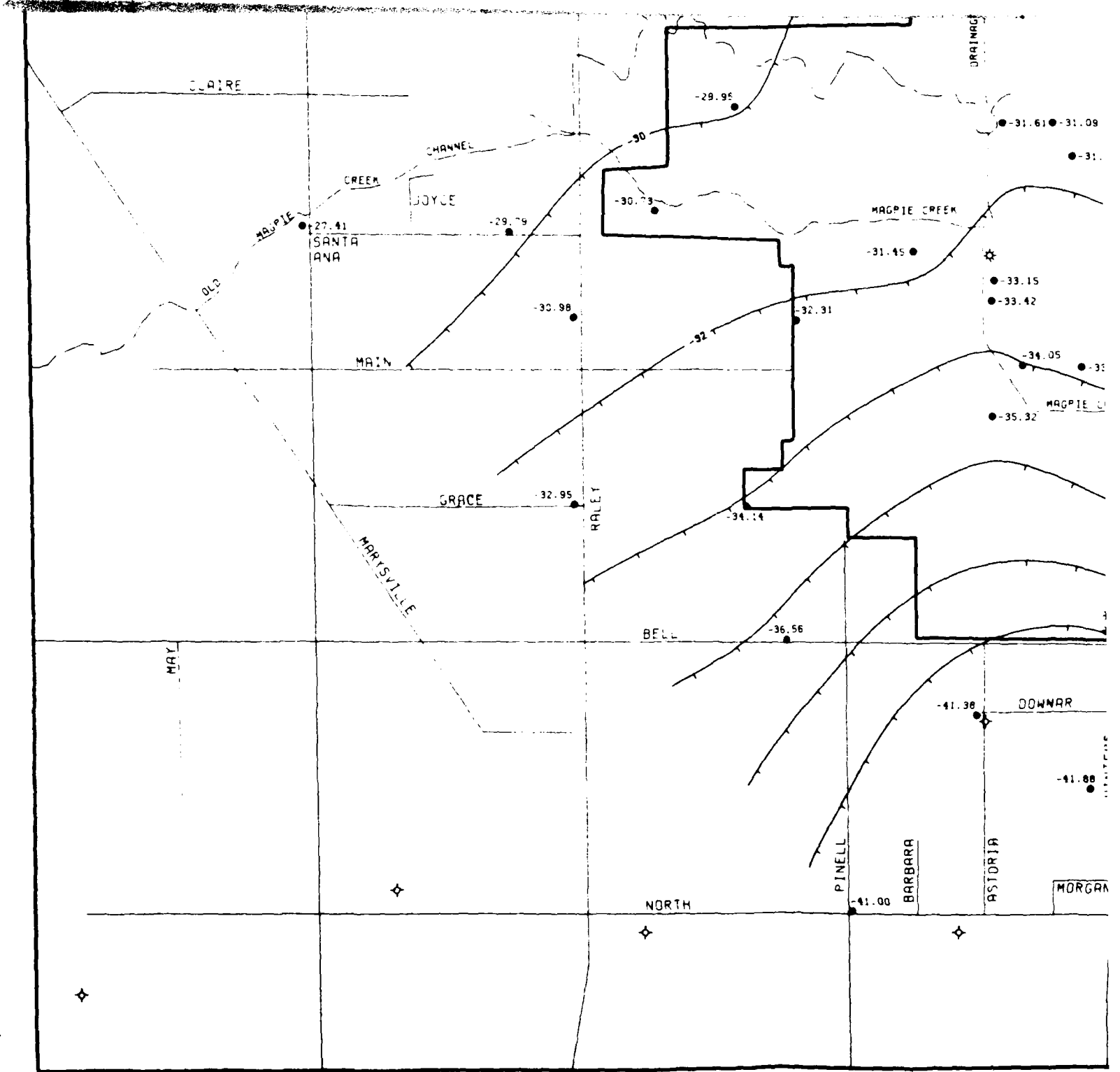
 SCALE IN FEET

GENERATED BY	<i>Deena Stanley</i>	DATE	<i>12-12-88</i>
PEER REVIEW	<i>Tyler J. Thompson</i>	DATE	<i>12-12-88</i>
PROJECT REVIEW	<i>Deena Stanley</i>	DATE	<i>10/12/88</i>

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- ~ STREAMS
- 30 - POTENTIAL
- SHALLOW ZONE
- ⊗ INACTIVE BAS
- ⊠ ACTIVE BASE
- ⊕ CITY WELL
- ⊛ CALTRANS WE
- ⊞ EXTRACTION



GENERATED BY: *[Signature]*
PEER REVIEW: *[Signature]*
PROJECT REVIEW: *[Signature]*

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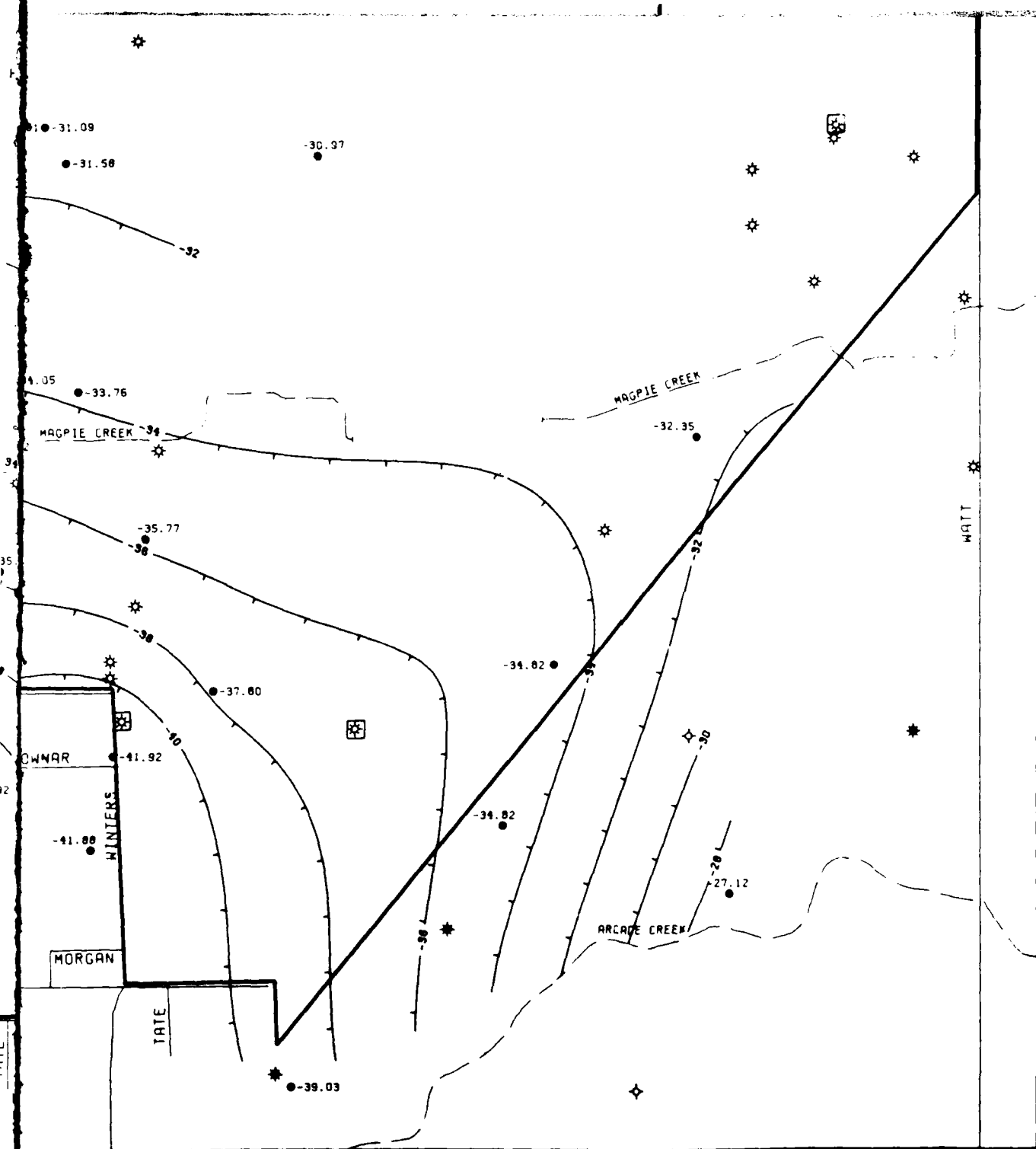


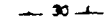






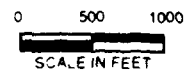


PLATE 7.
SHALLOW MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED AUGUST 1 - 3, 1988

McCLELLAN AFB
July - September 1988
Data Summary

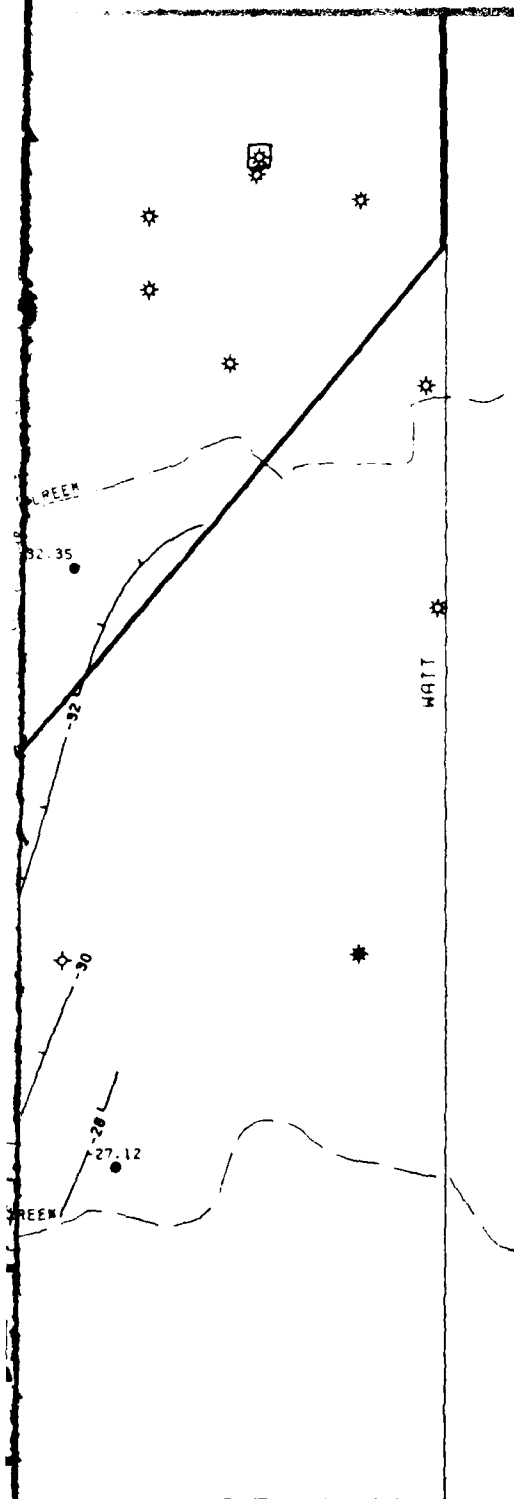
LEGEND

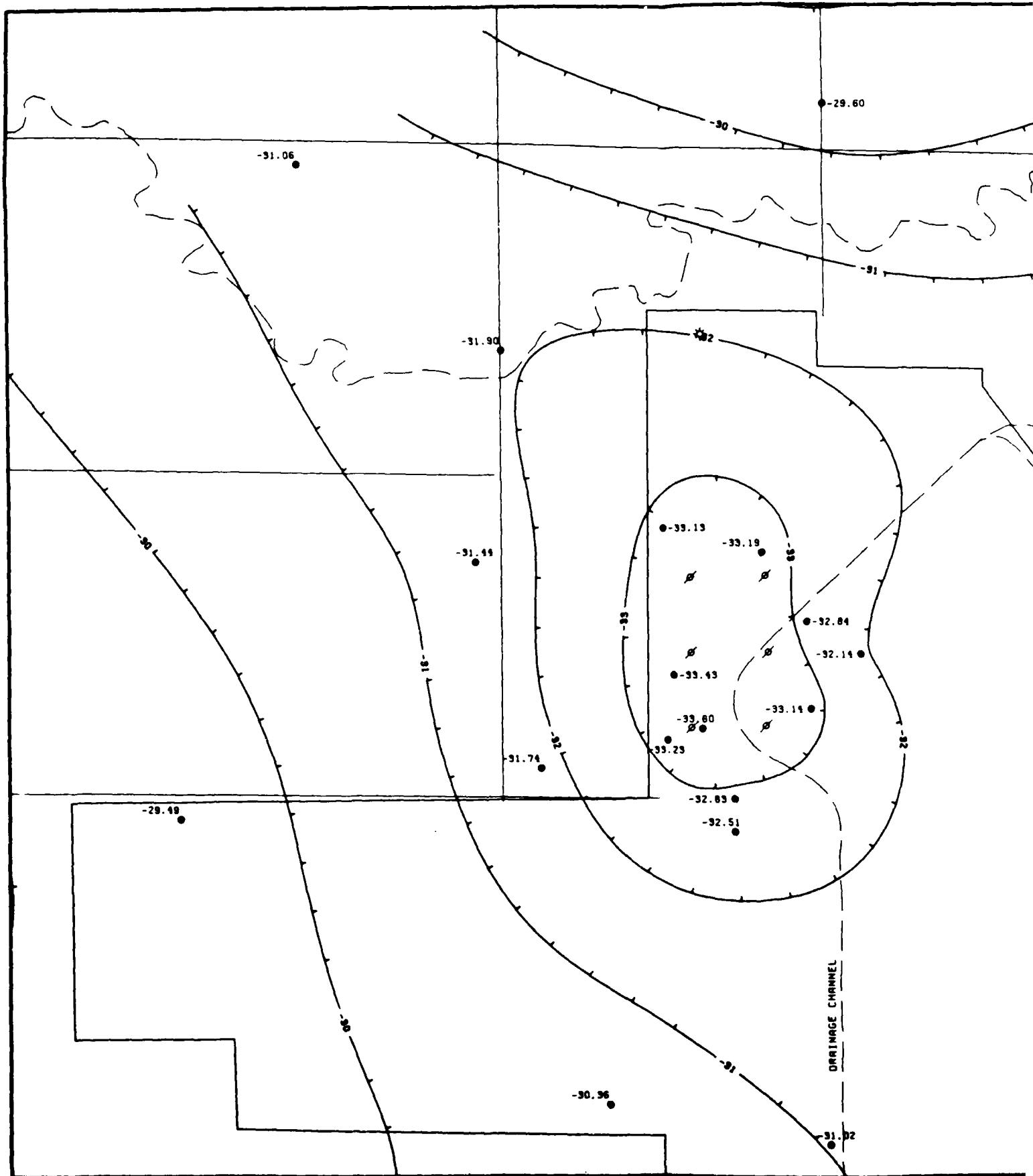
-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE AND ELEVATION (FT. MSL)
-  SHALLOW ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  CITY WELL
-  CALTRANS WELL
-  EXTRACTION WELL

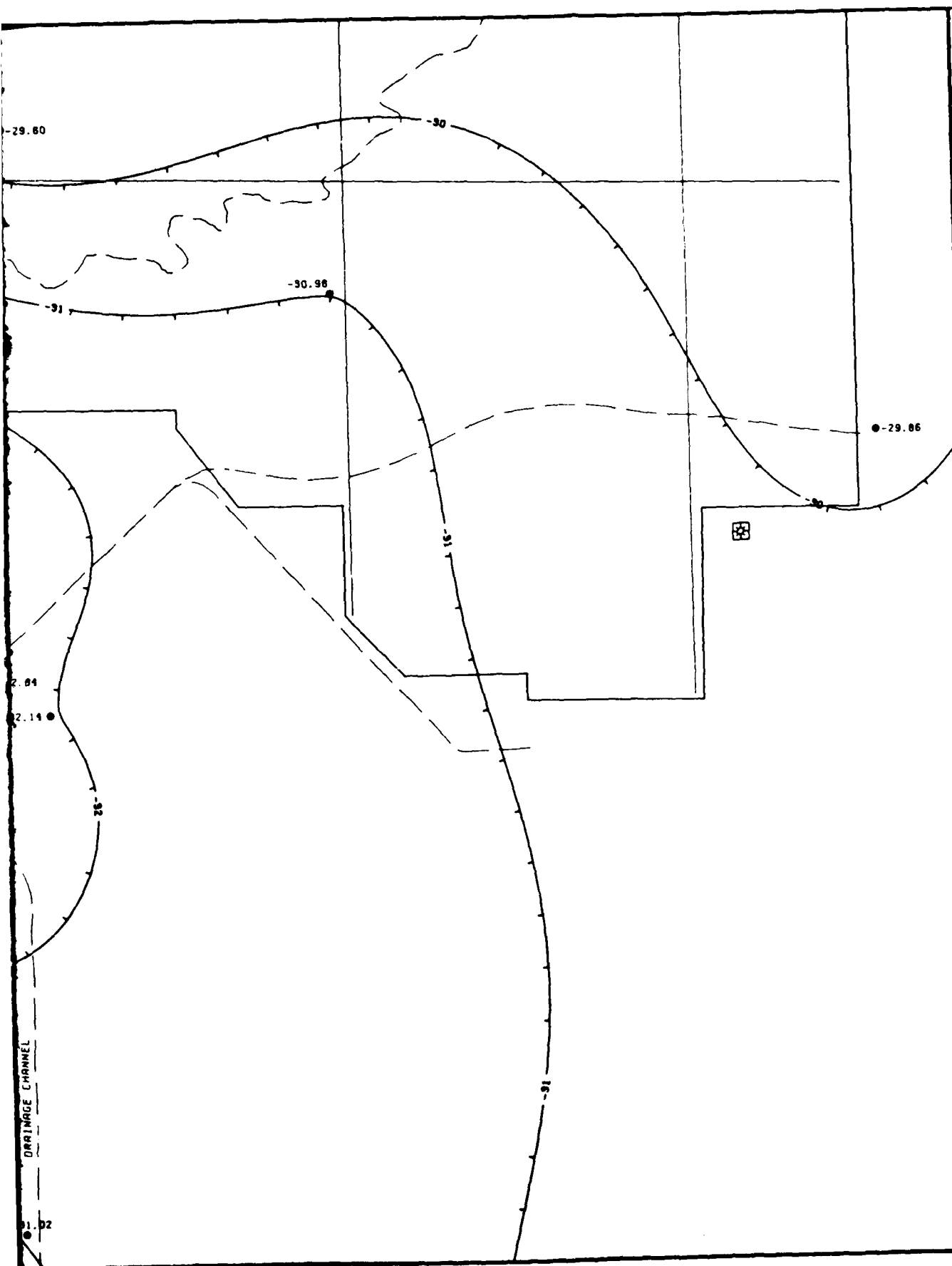


GENERATED BY <i>John A. H. H. H.</i>	DATE <i>1-12-88</i>
PEER REVIEW <i>John A. H. H. H.</i>	DATE <i>10-12-88</i>
PROJECT REVIEW <i>Deena Gendron</i>	DATE <i>10/12/88</i>

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 - ⌘ EXTRACTION WE










GENERATED BY *J. H. Hall*
PEER REVIEW *J. H. Hall*
PROJECT REVIEW *J. H. Hall*

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PLATE 8.
AREA D - SHALLOW MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED AUGUST 1 - 3, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

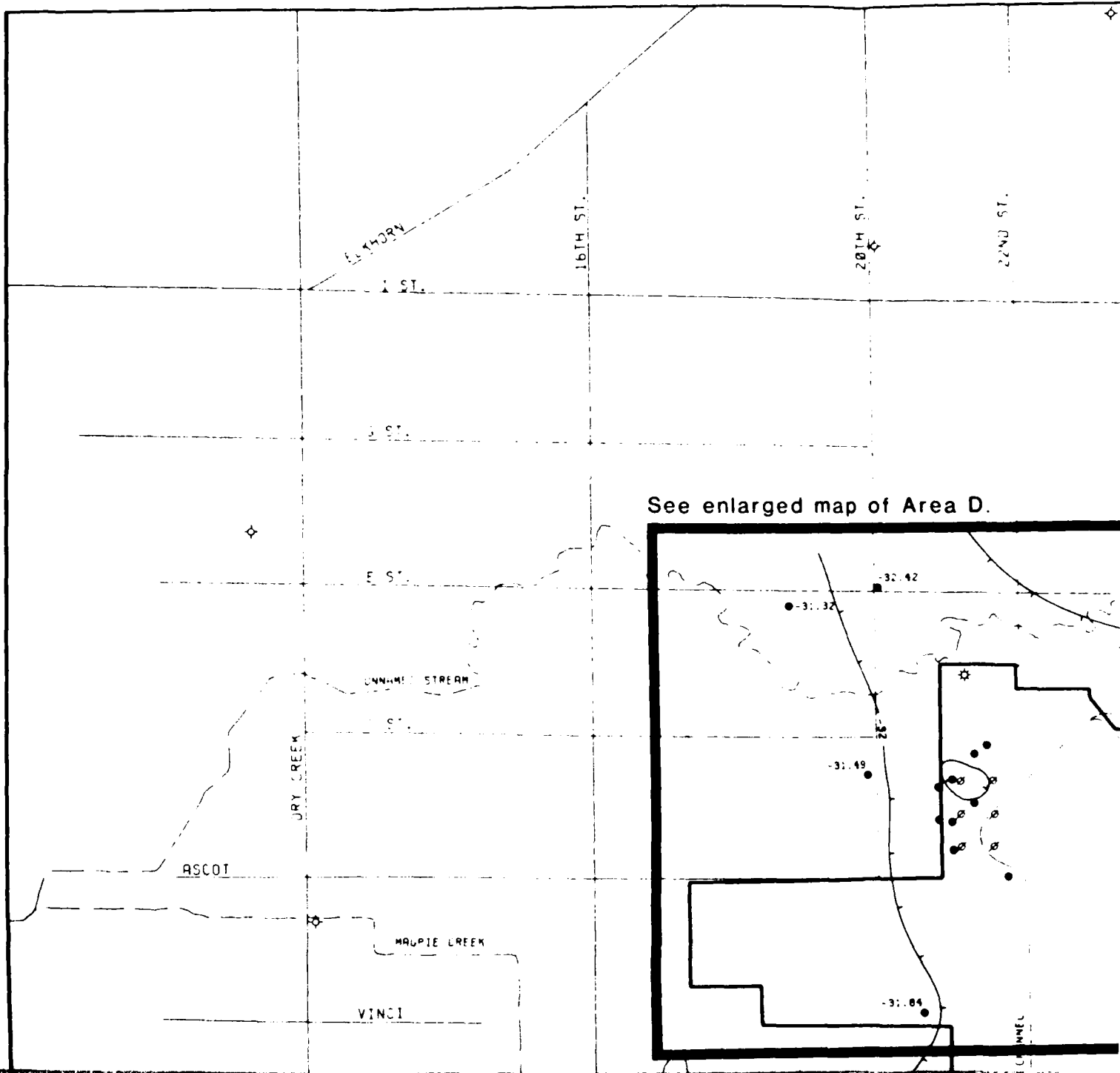
-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
-  SHALLOW ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  EXTRACTION WELL

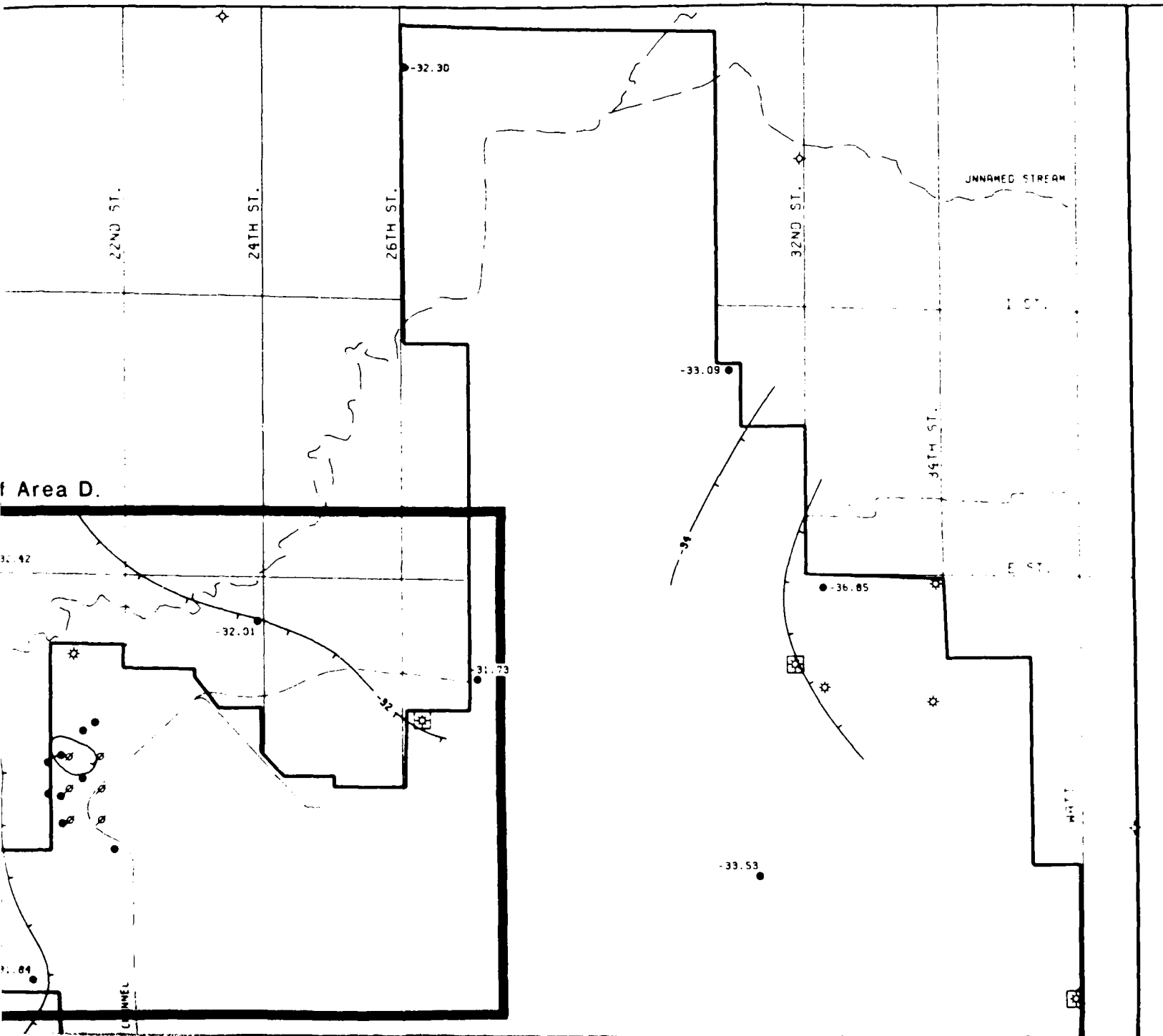


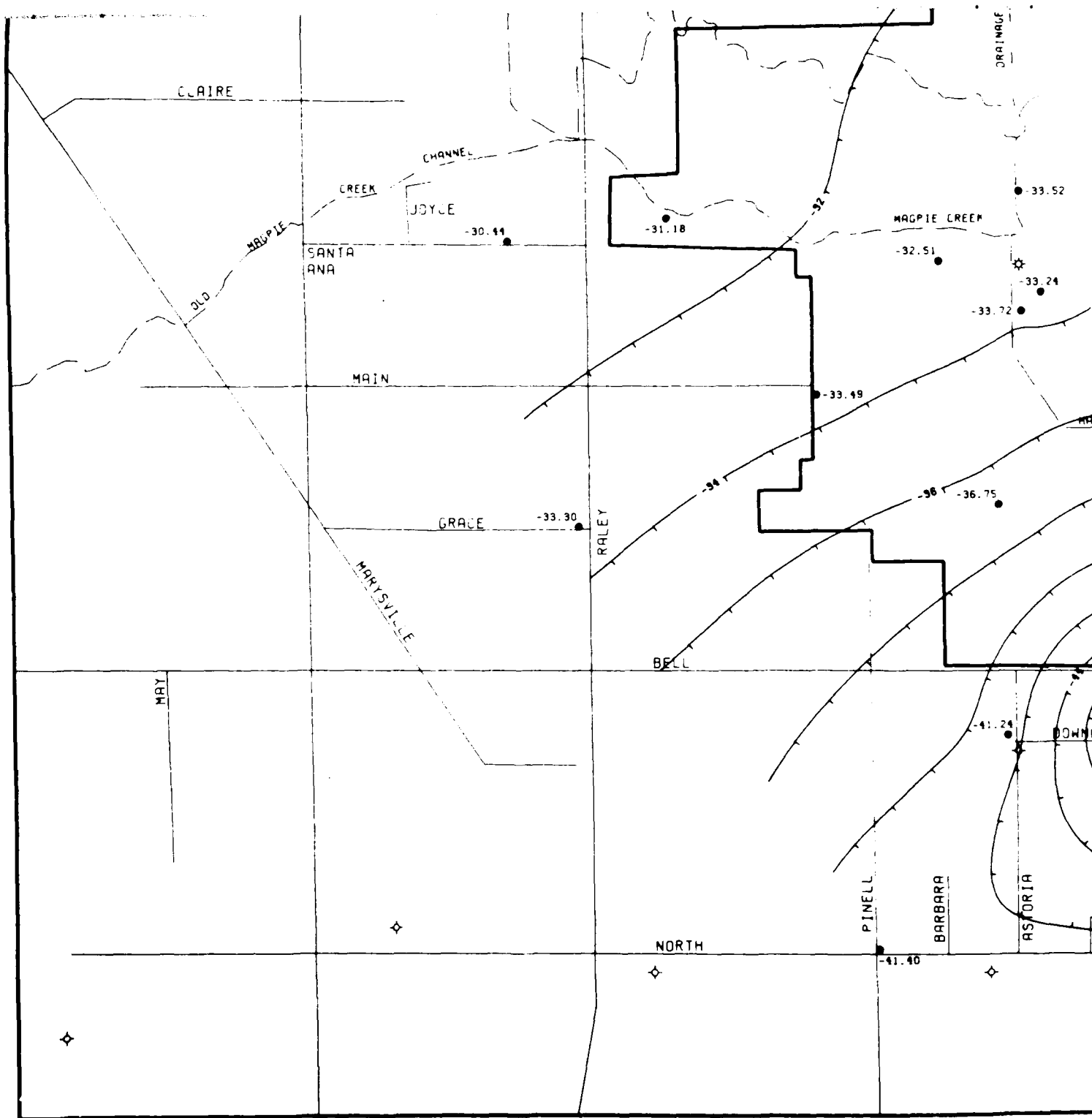
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SCALE IN FEET

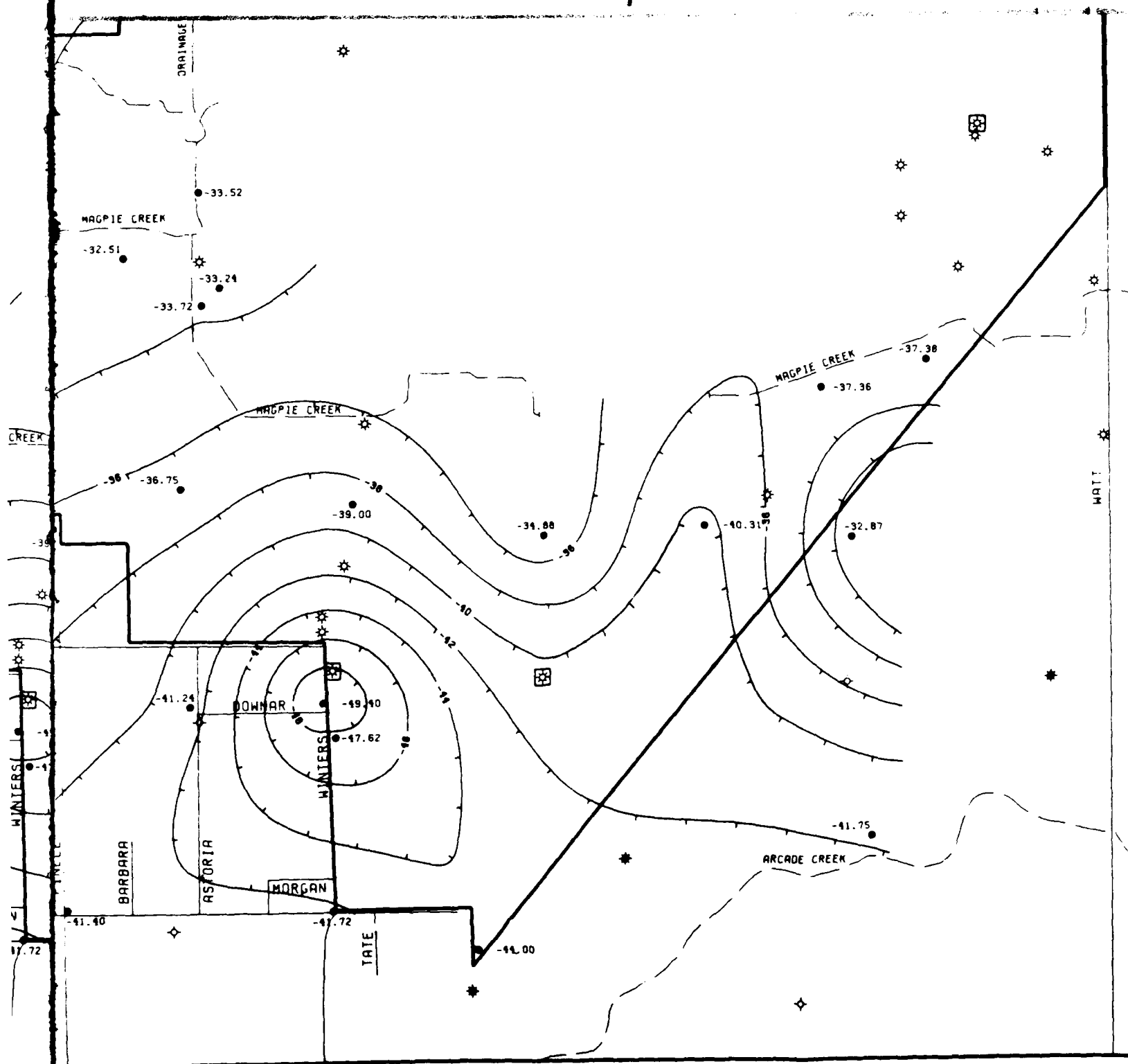
GENERATED BY <i>W. Hadden</i>	DATE <i>10-12-88</i>
PEER REVIEW <i>J. C. Thompson</i>	DATE <i>10-12-88</i>
PROJECT REVIEW <i>Deane Stenberg</i>	DATE <i>10/12/88</i>

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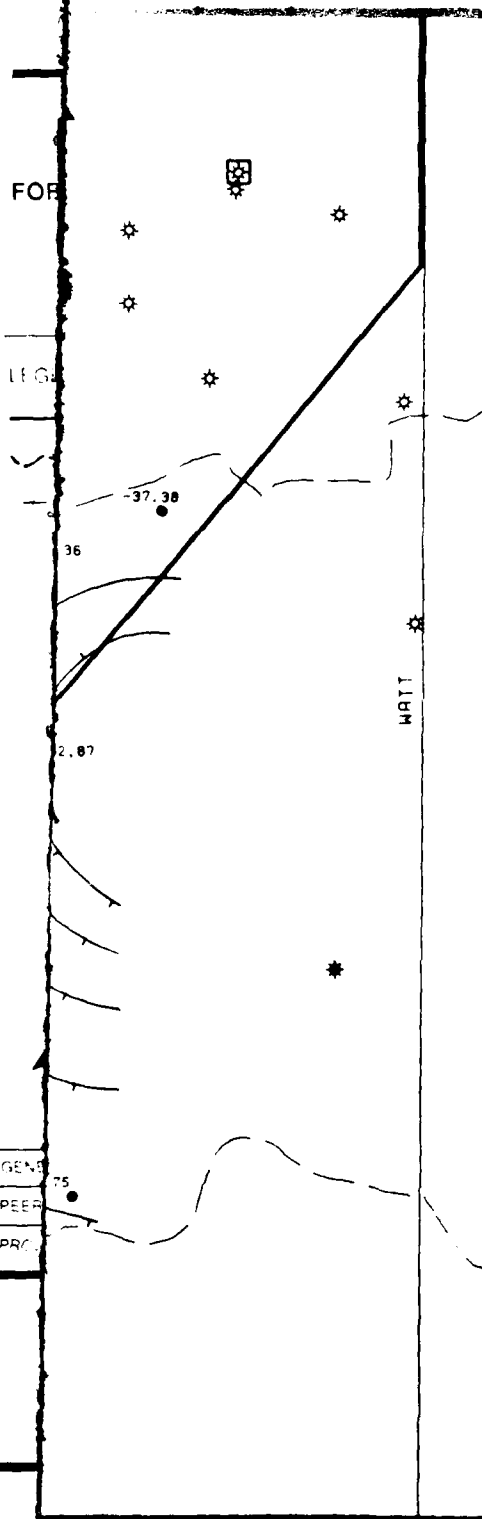


PLATE 9.
MIDDLE MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED AUGUST 1 - 3, 1988

McCLELLAN AFB
July - September 1988
Data Summary

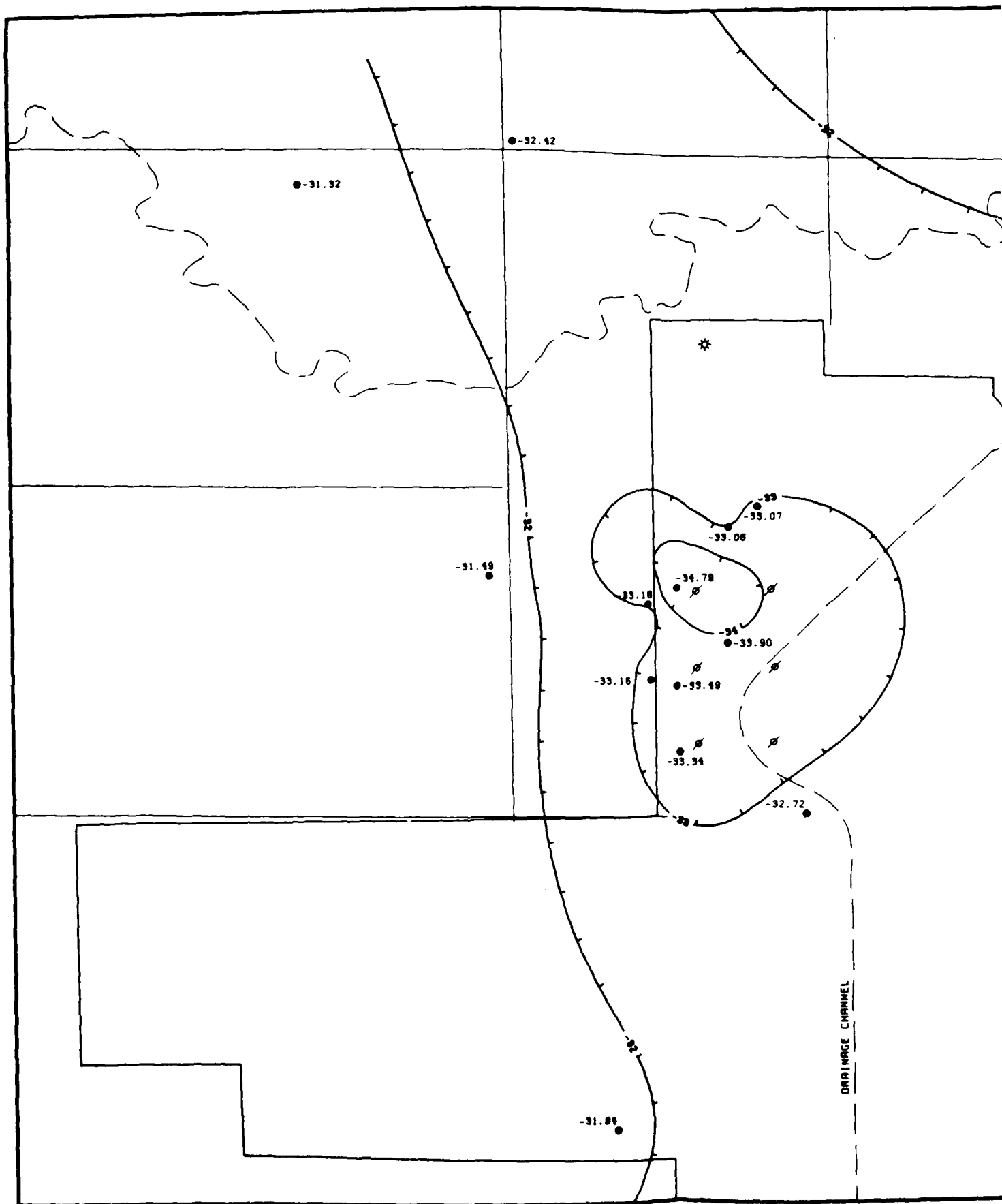
LEGEND

- McCLELLAN AFB BOUNDARY
- ~ STREAMS
- 30 - POTENTIOMETRIC CONTOUR LINE AND ELEVATION FT. MSL.
- MIDDLE ZONE MONITORING WELL
- ⊛ INACTIVE BASE PRODUCTION WELL
- ⊞ ACTIVE BASE PRODUCTION WELL
- ⊕ CITY WELL
- ⊛ CALTRANS WELL
- ⊞ EXTRACTION WELL



GENERATED BY	<i>John M. ...</i>	DATE	<i>1-12-88</i>
PEER REVIEW	<i>John P. ...</i>	DATE	<i>12-12-88</i>
PROJECT REVIEW	<i>Deena Stenberg</i>	DATE	<i>12/12/88</i>








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PLATE 10.
AREA D - MIDDLE MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED AUGUST 1 - 3, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND.

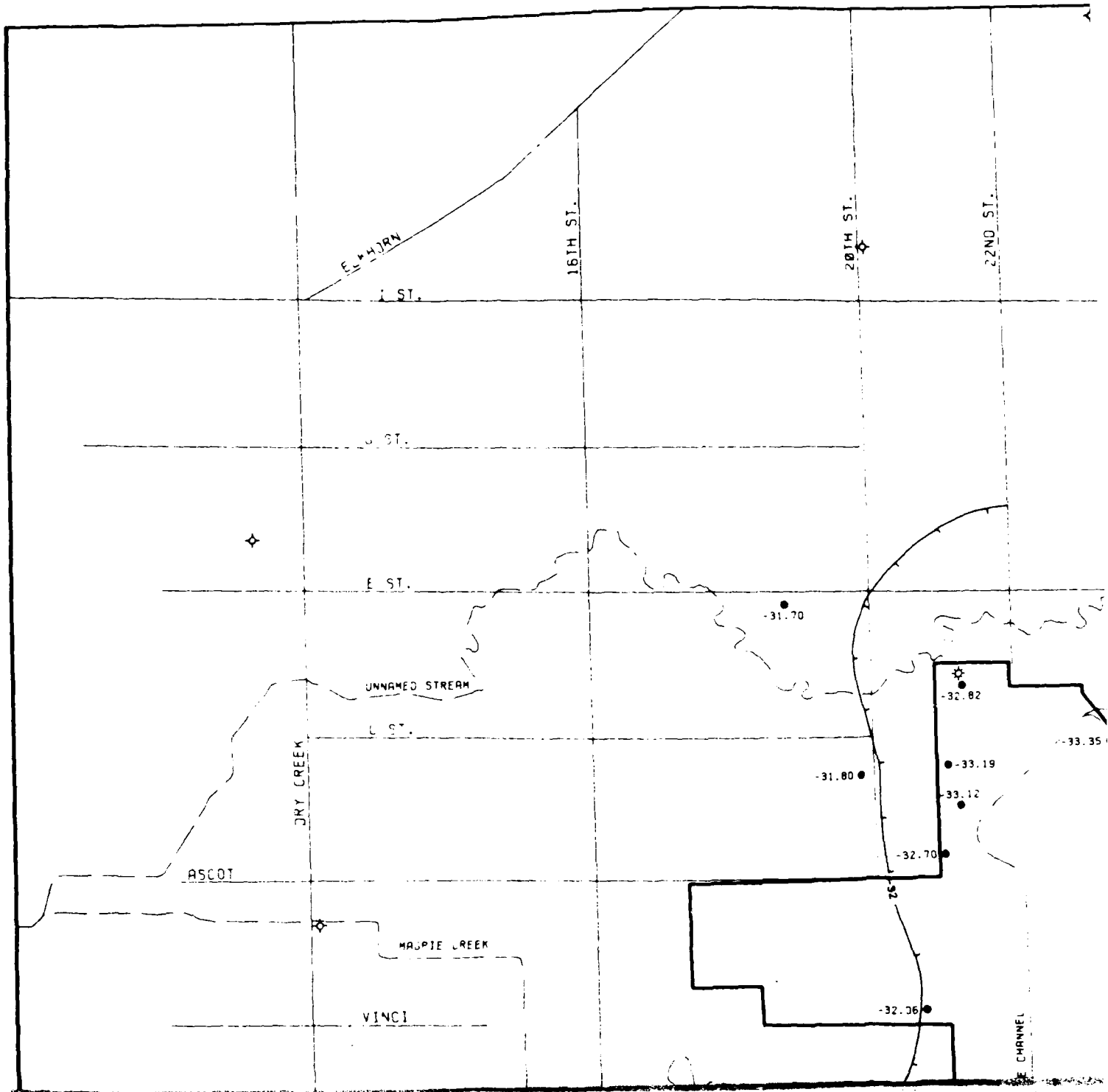
-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
-  MIDDLE ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  EXTRACTION WELL

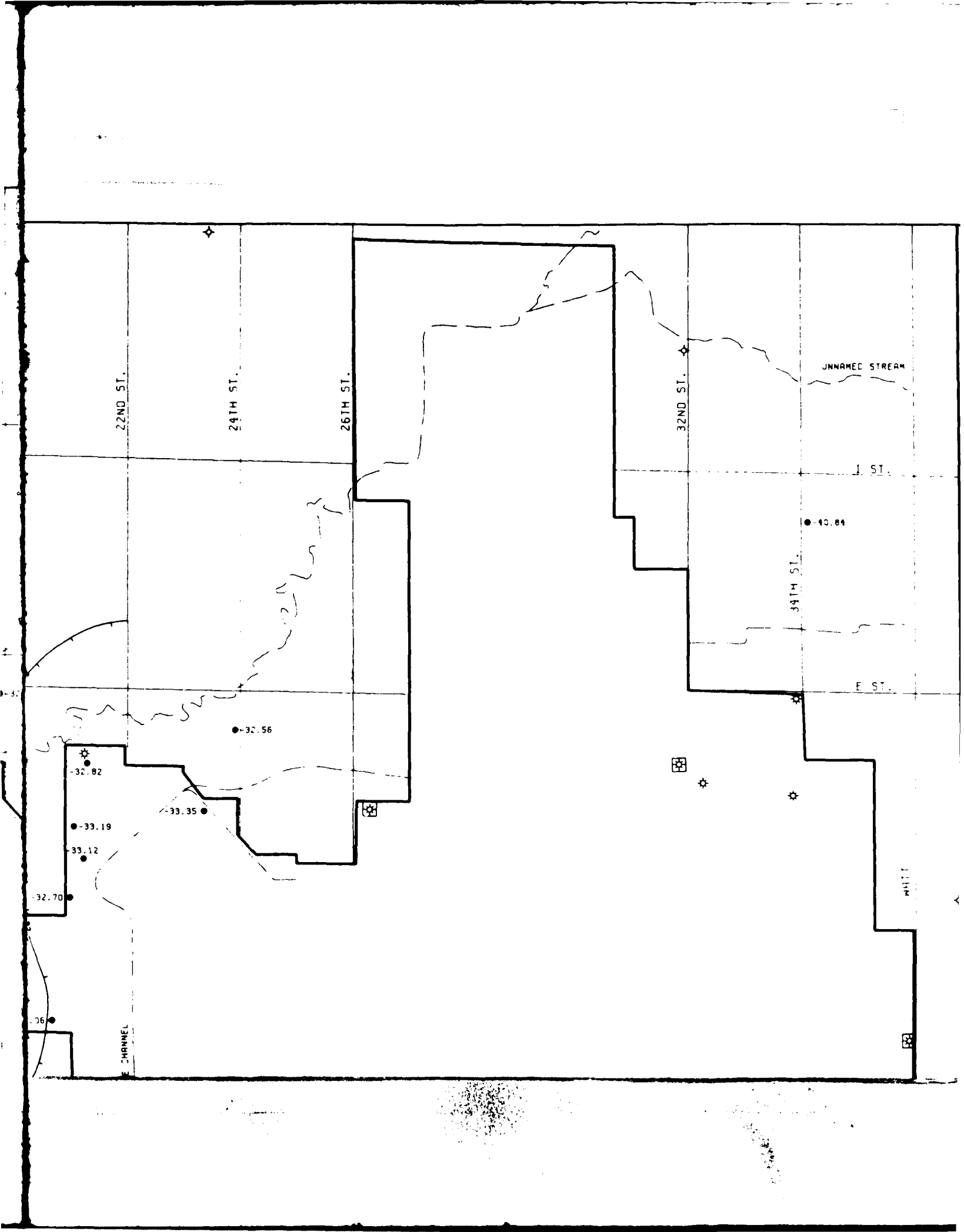


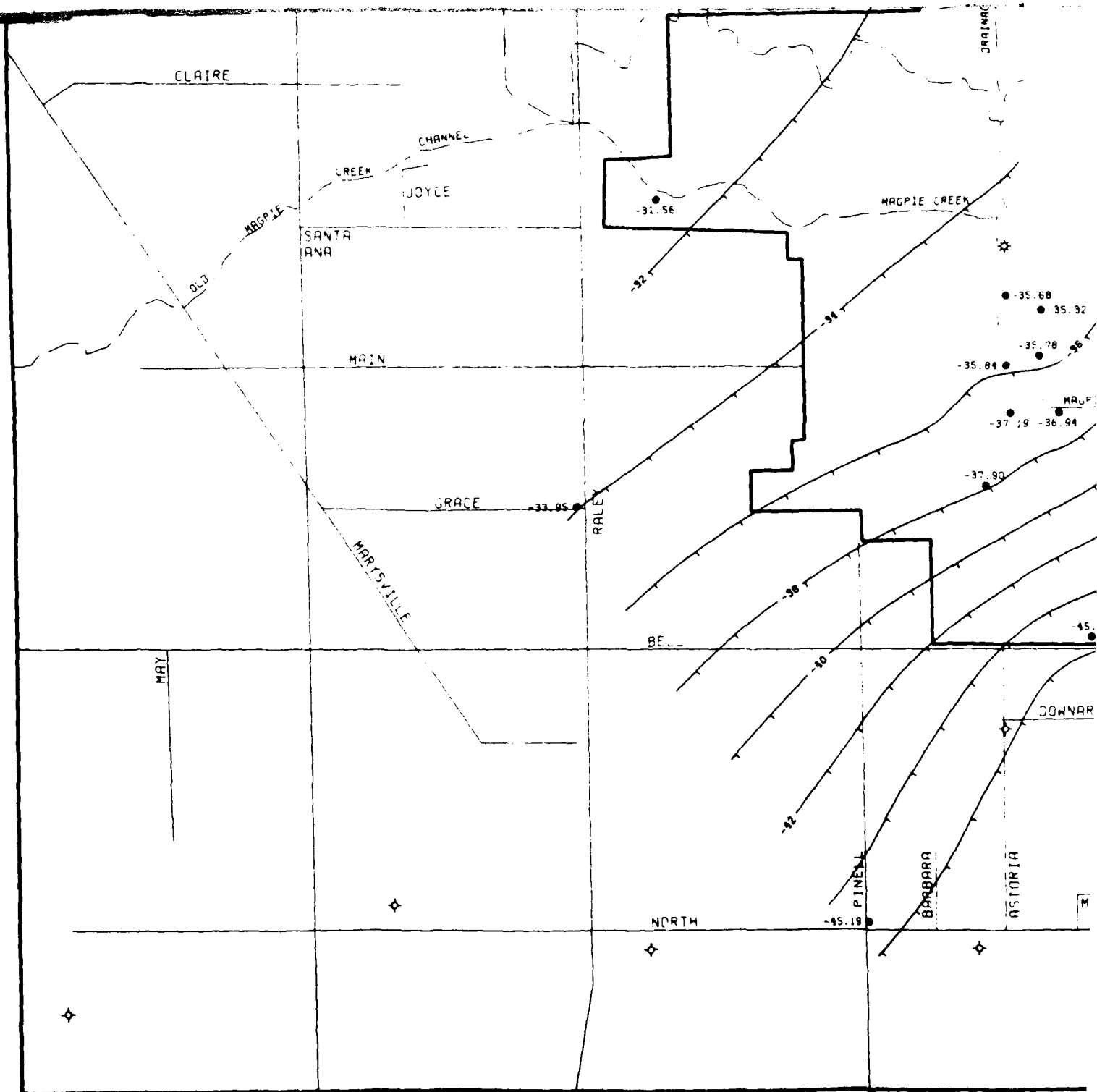
0 200 400
SCALE IN FEET

GENERATED BY *W. A. ...* DATE *1-12-88*
PEER REVIEW *J. L. ...* DATE *10-12-88*
PROJECT REVIEW *Deane Stanley* DATE *10/12/88*

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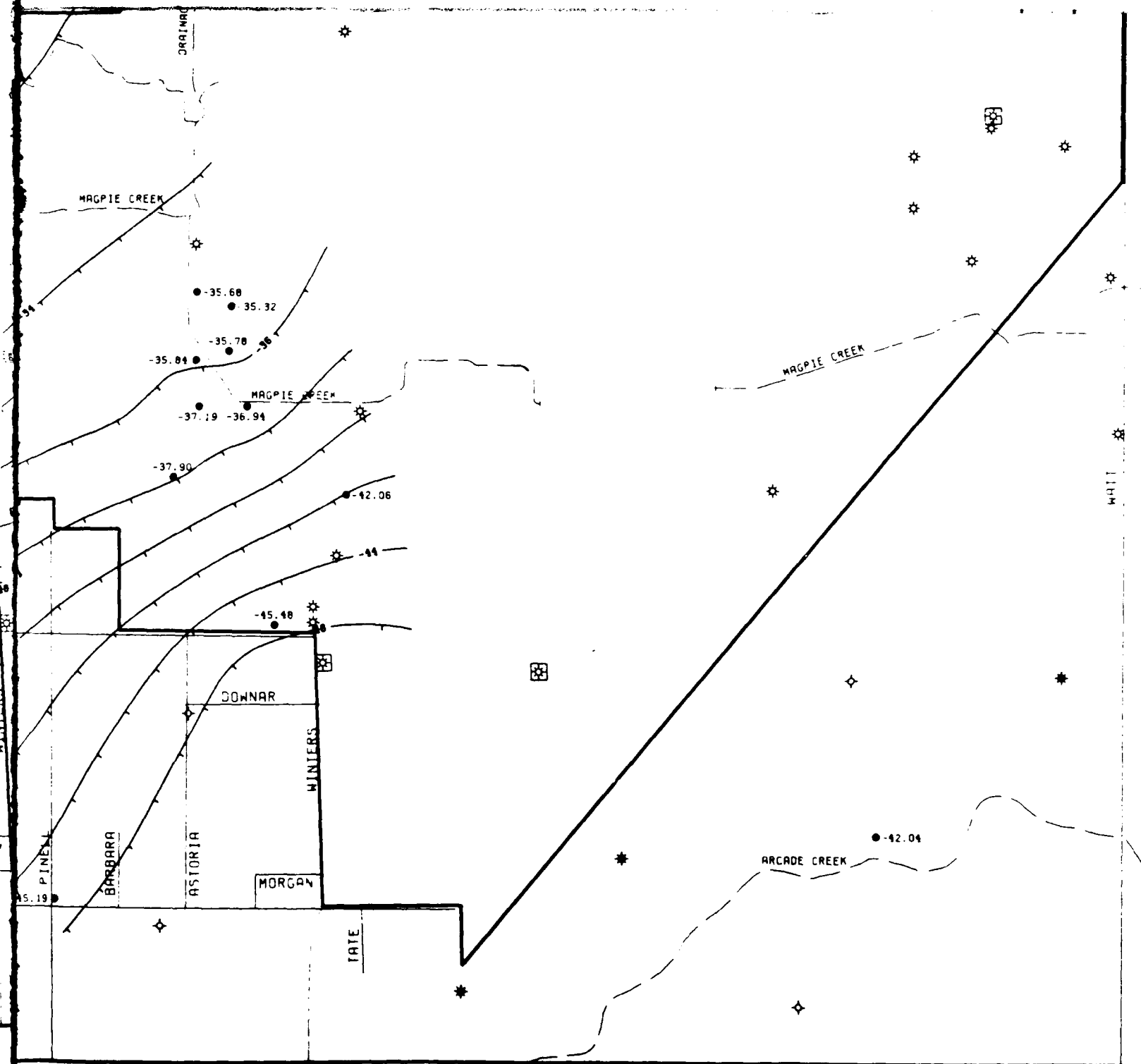











PLATE 11.
DEEP MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED AUGUST 1 - 3, 1988

McCLELLAN AFB
July - September 1988
Data Summary

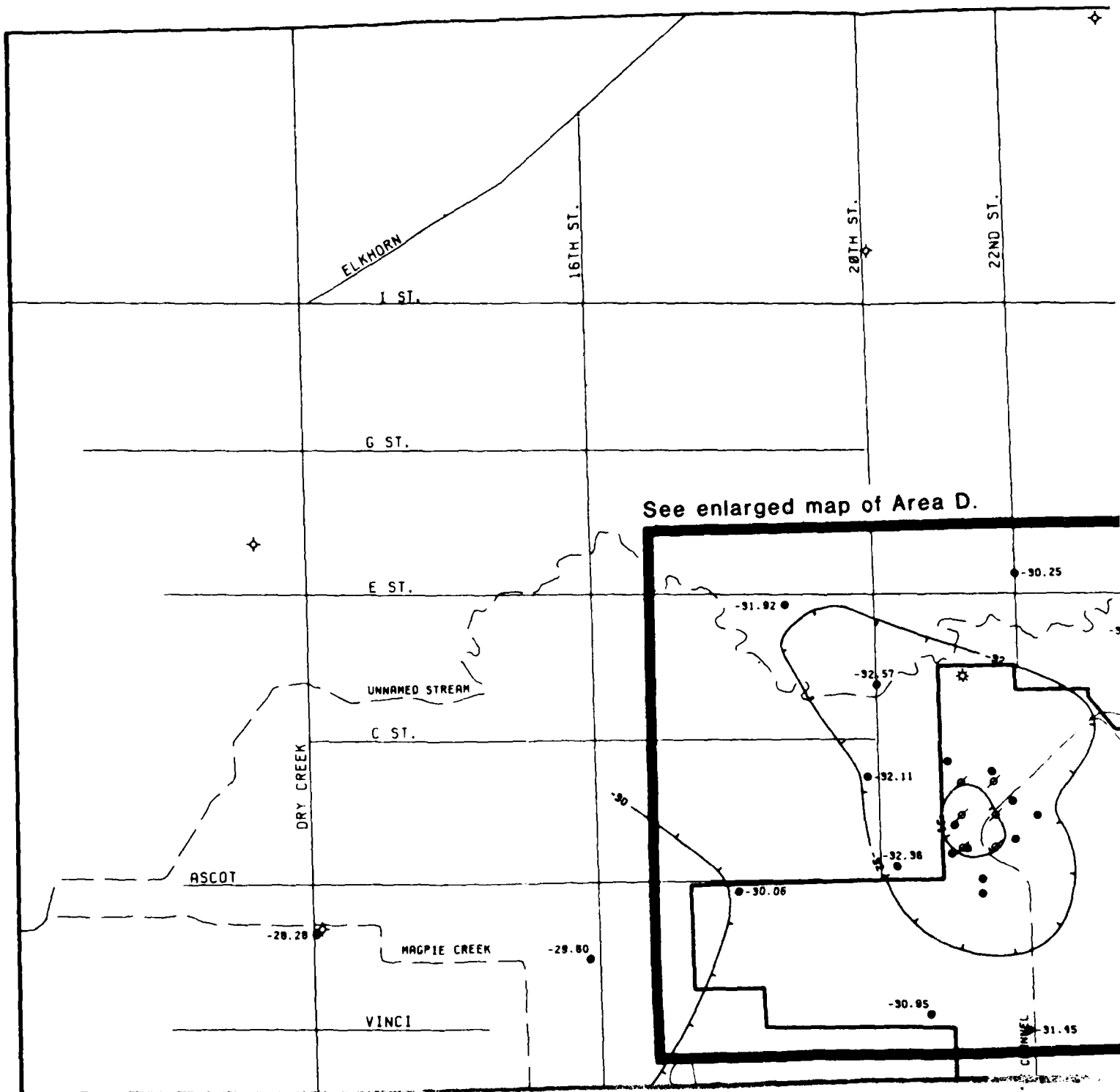
LEGEND

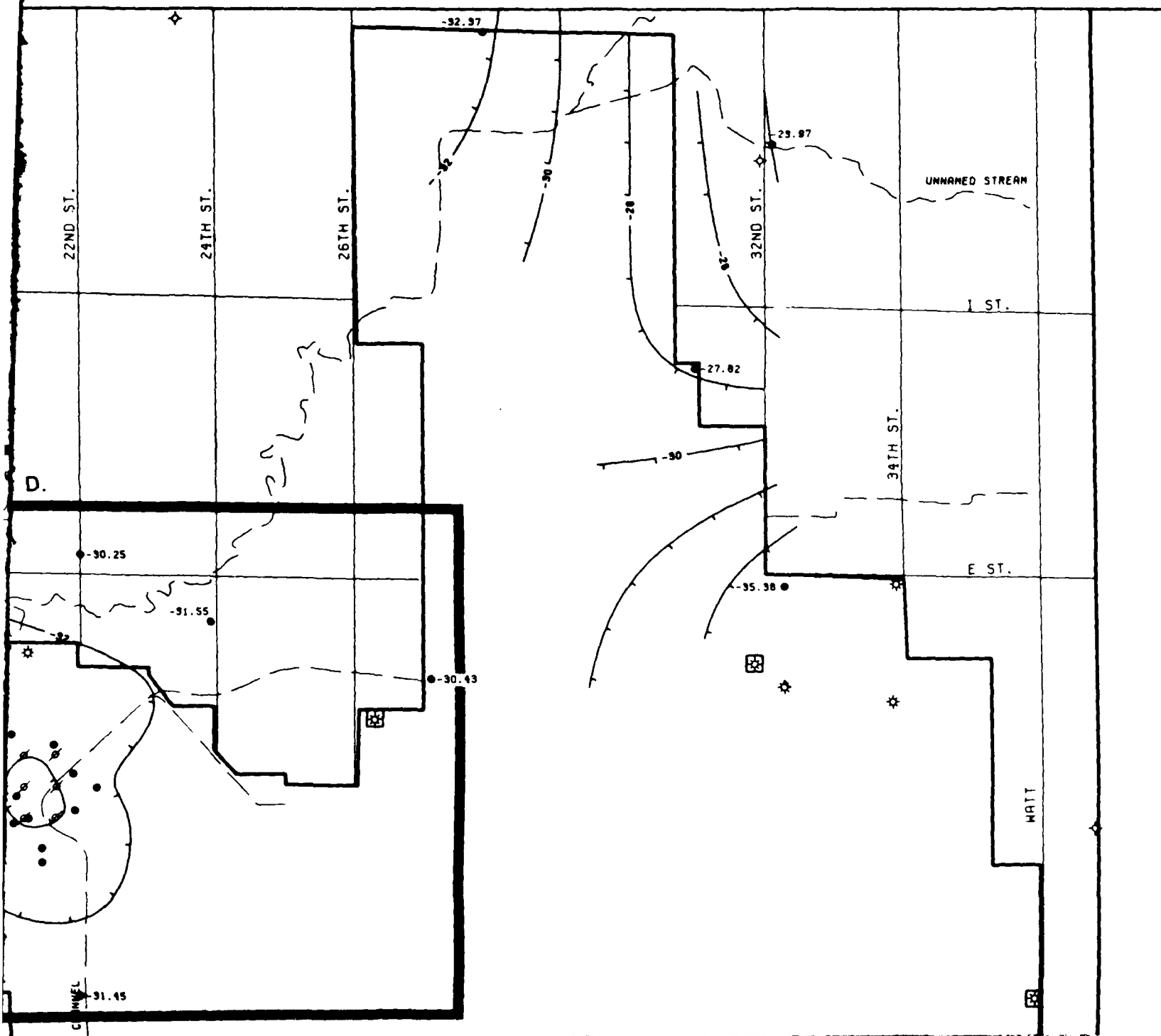
-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE AND ELEVATION (FT. MSL)
-  DEEP ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  CITY WELL
-  CALTRANS WELL
-  EXTRACTION WELL

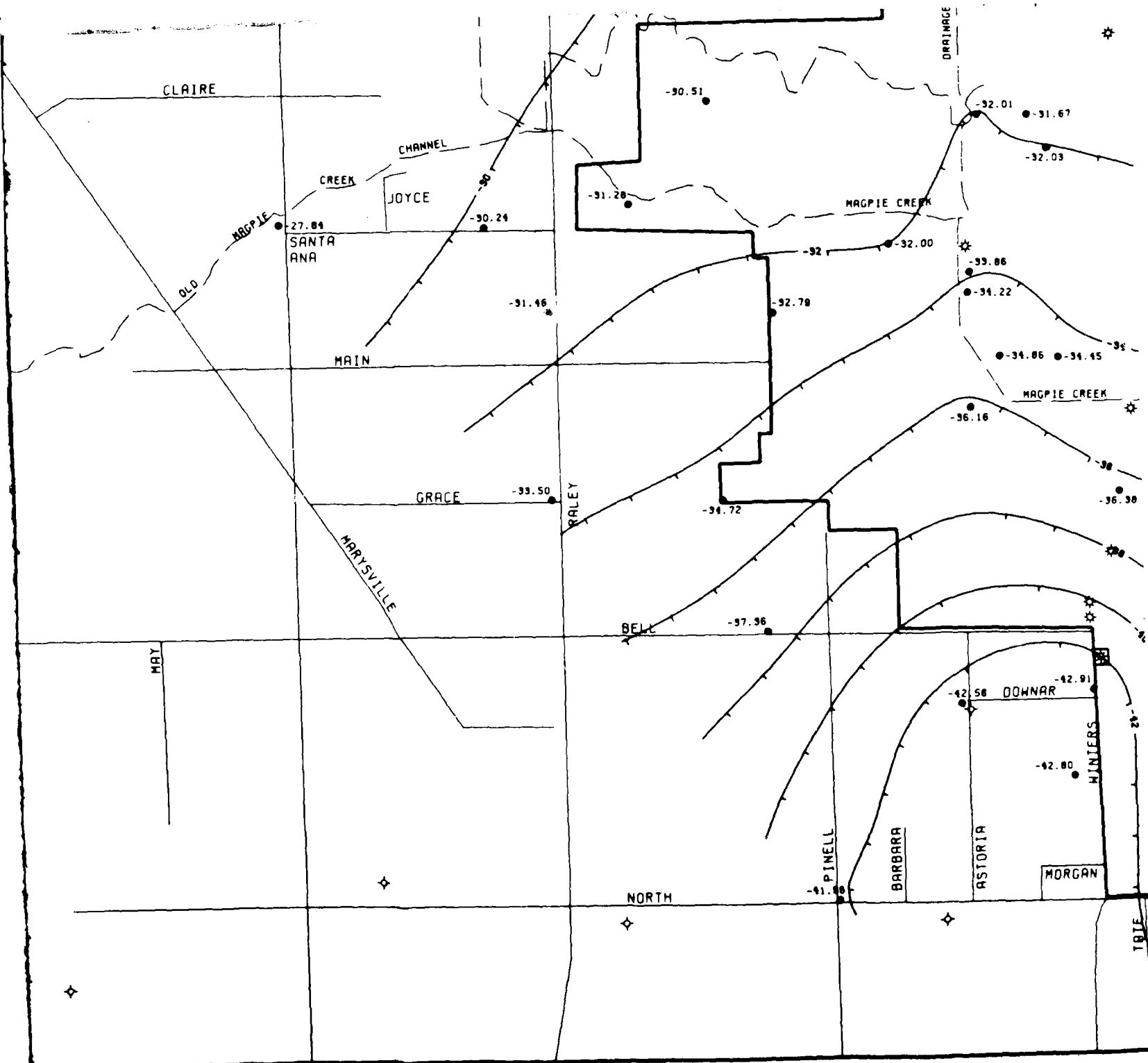


GENERATED BY <i>Deanna A. Stanley</i>	DATE <i>1-12-89</i>
PEER REVIEW <i>John P. Thompson</i>	DATE <i>10-12-88</i>
PROJECT REVIEW <i>Deanna A. Stanley</i>	DATE <i>10/12/88</i>

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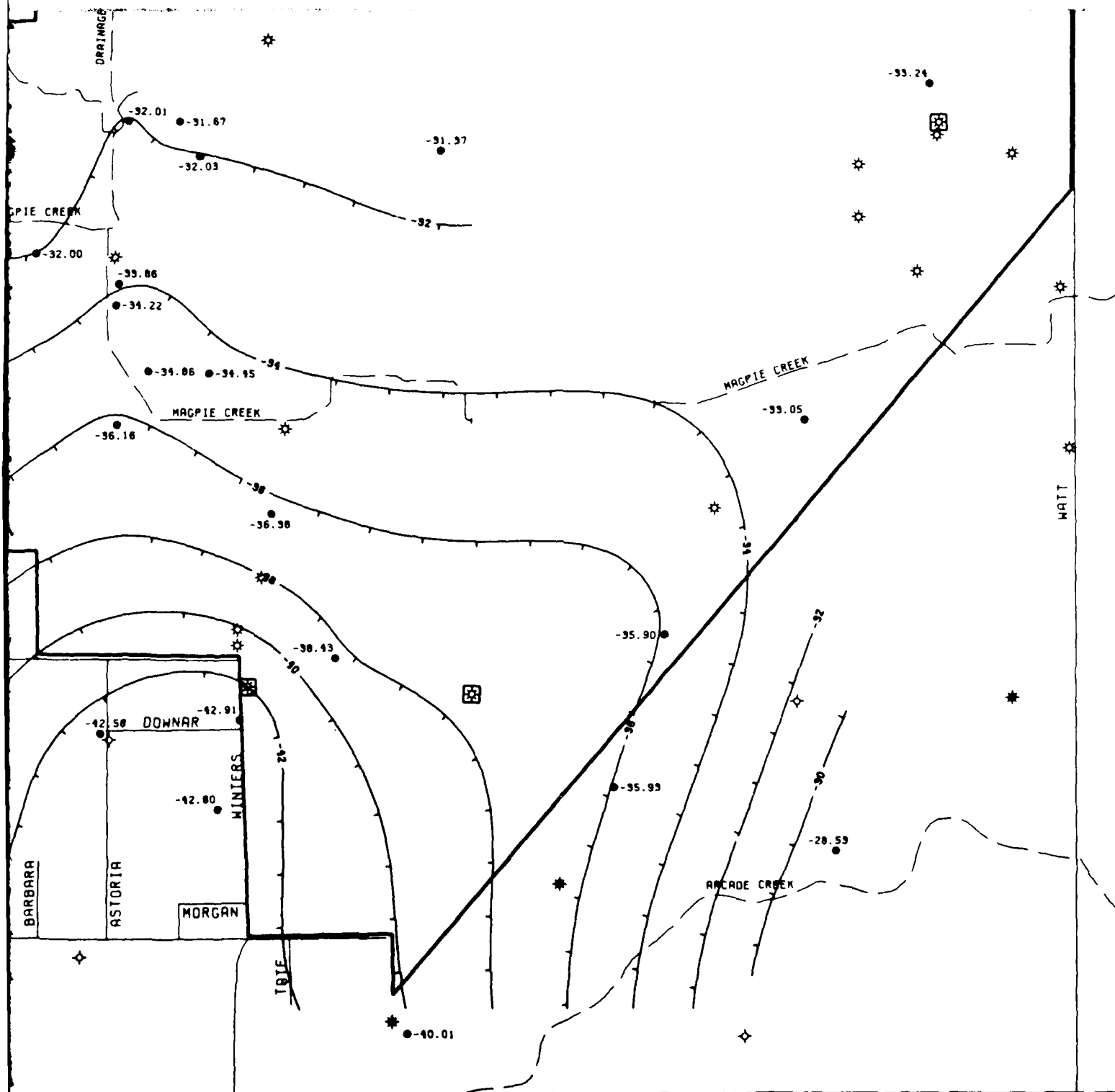


PLATE 12.
SHALLOW MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED SEPT. 1 - 2, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND.

- McCLELLAN AFB BOUNDARY
- ~ ~ ~ STREAMS
- 30 — POTENTIOMETRIC CONTOUR LINE AND ELEVATION (FT. MSL)
- SHALLOW ZONE MONITORING WELL
- ⊗ INACTIVE BASE PRODUCTION WELL
- ⊠ ACTIVE BASE PRODUCTION WELL
- ⬠ CITY WELL
- ⊛ CALTRANS WELL
- ⊘ EXTRACTION WELL



GENERATED BY	<i>W. A. ...</i>	DATE	<i>10-12-88</i>
PEER REVIEW	<i>Lyle P. Thompson</i>	DATE	<i>12-12-88</i>
PROJECT REVIEW	<i>Deane Stanley</i>	DATE	<i>10/12/88</i>

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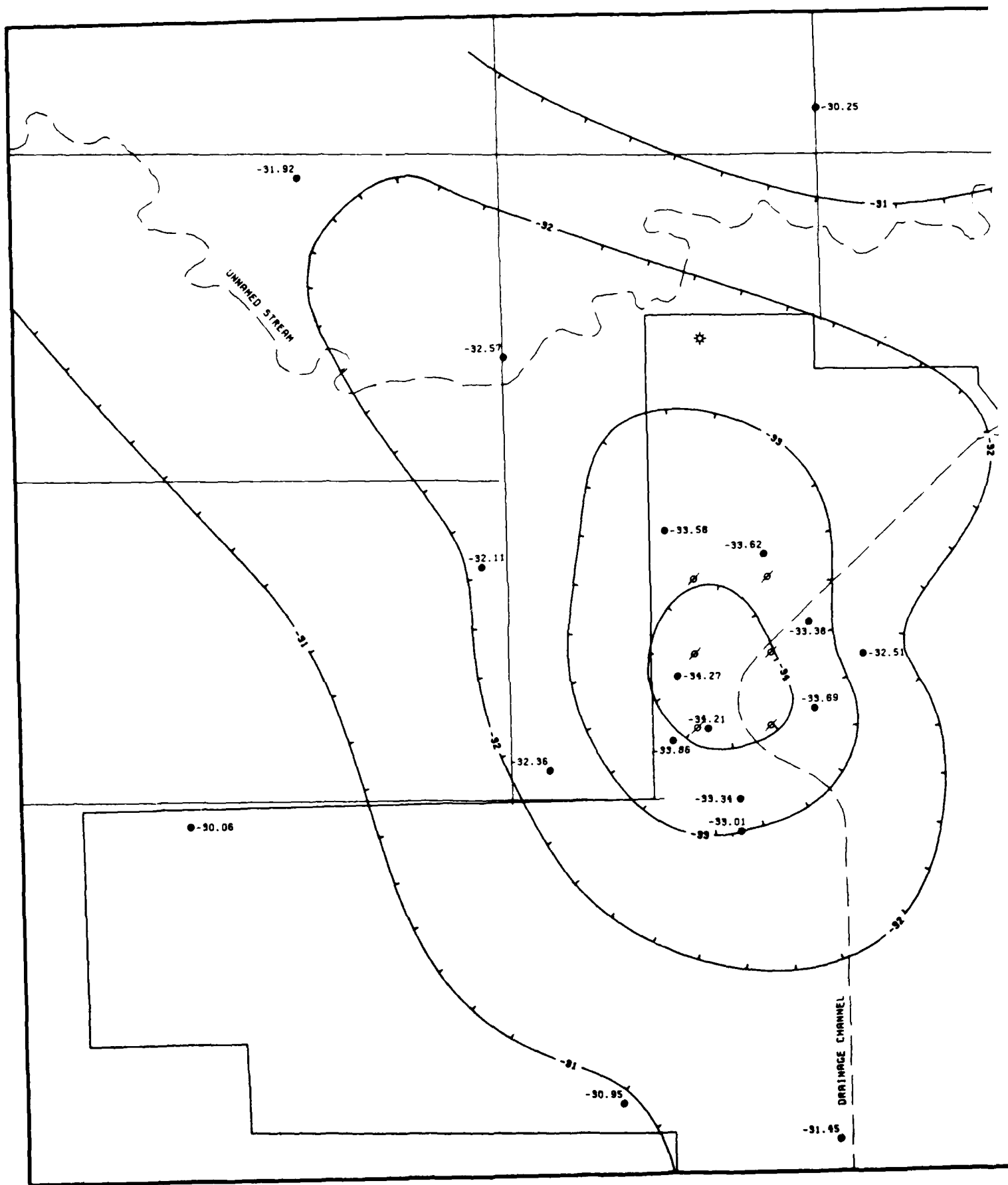
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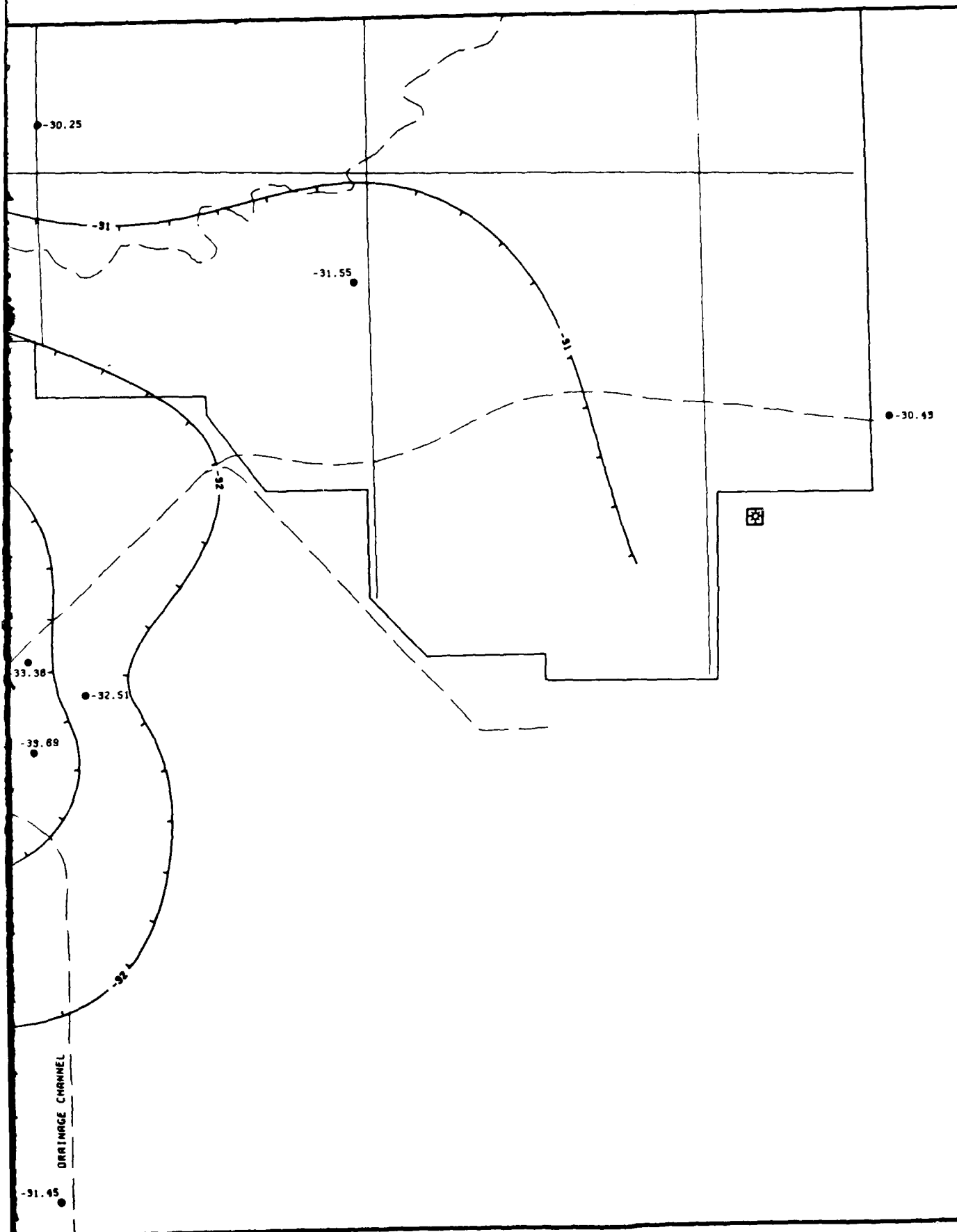
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PLATE13.
AREA D - SHALLOW MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED SEPT. 1 - 2, 1988

McCLELLAN AFB
July - September 1988
Data Summary

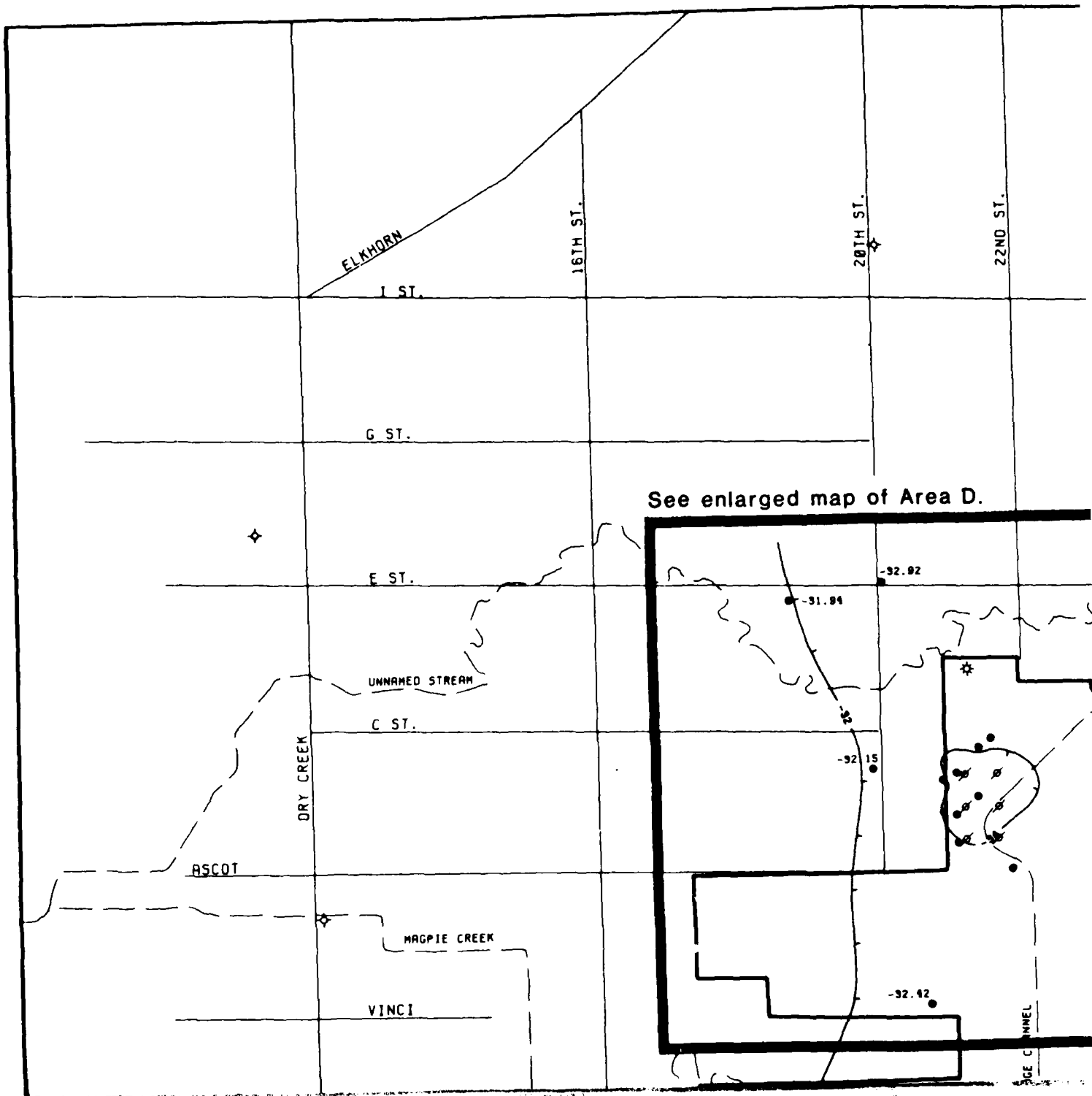
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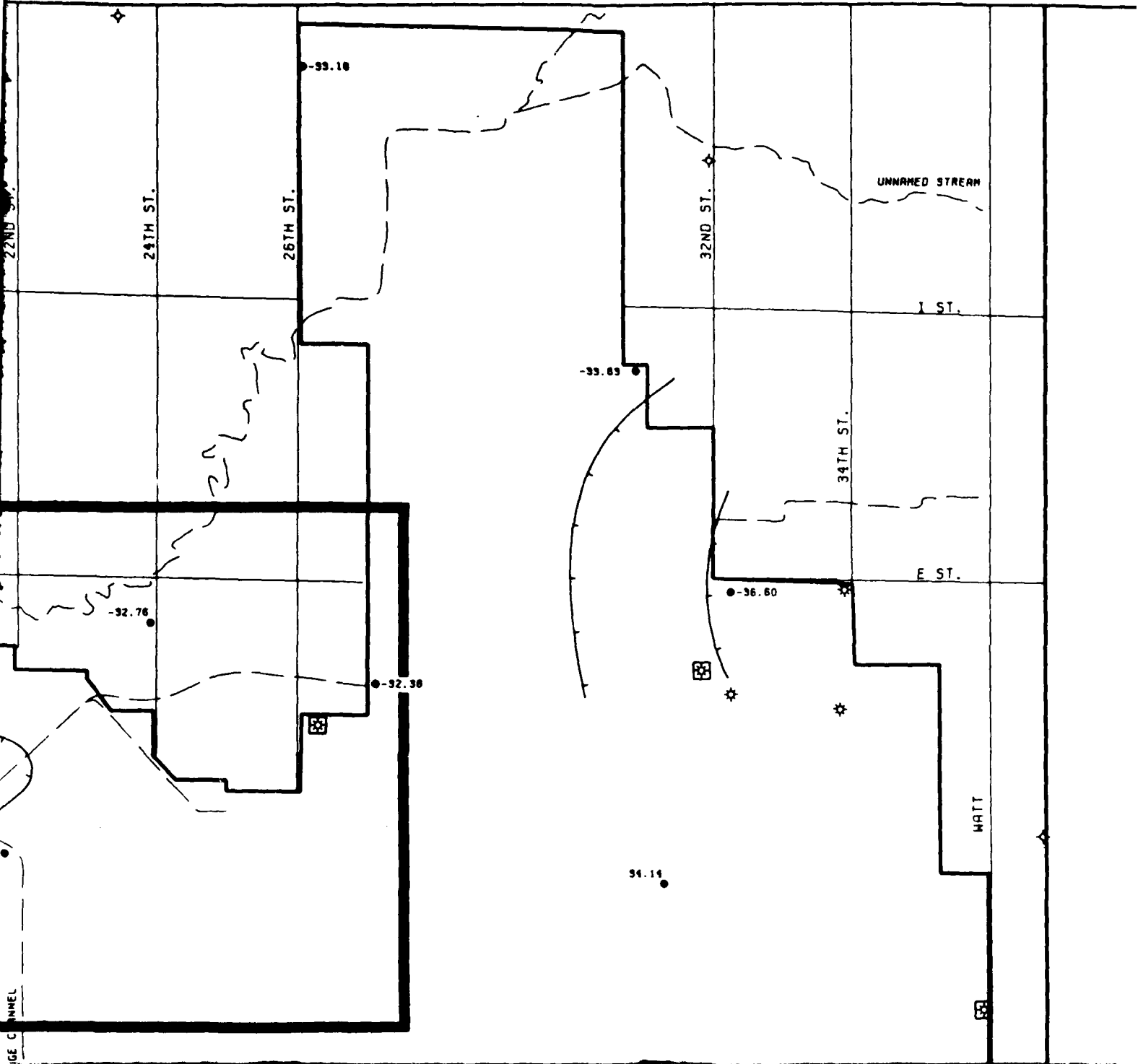
- McCLELLAN AFB BOUNDARY
- ~~~~ STREAMS
- 30 — POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
- SHALLOW ZONE MONITORING WELL
- ⊕ INACTIVE BASE PRODUCTION WELL
- ⊞ ACTIVE BASE PRODUCTION WELL
- ⊘ EXTRACTION WELL



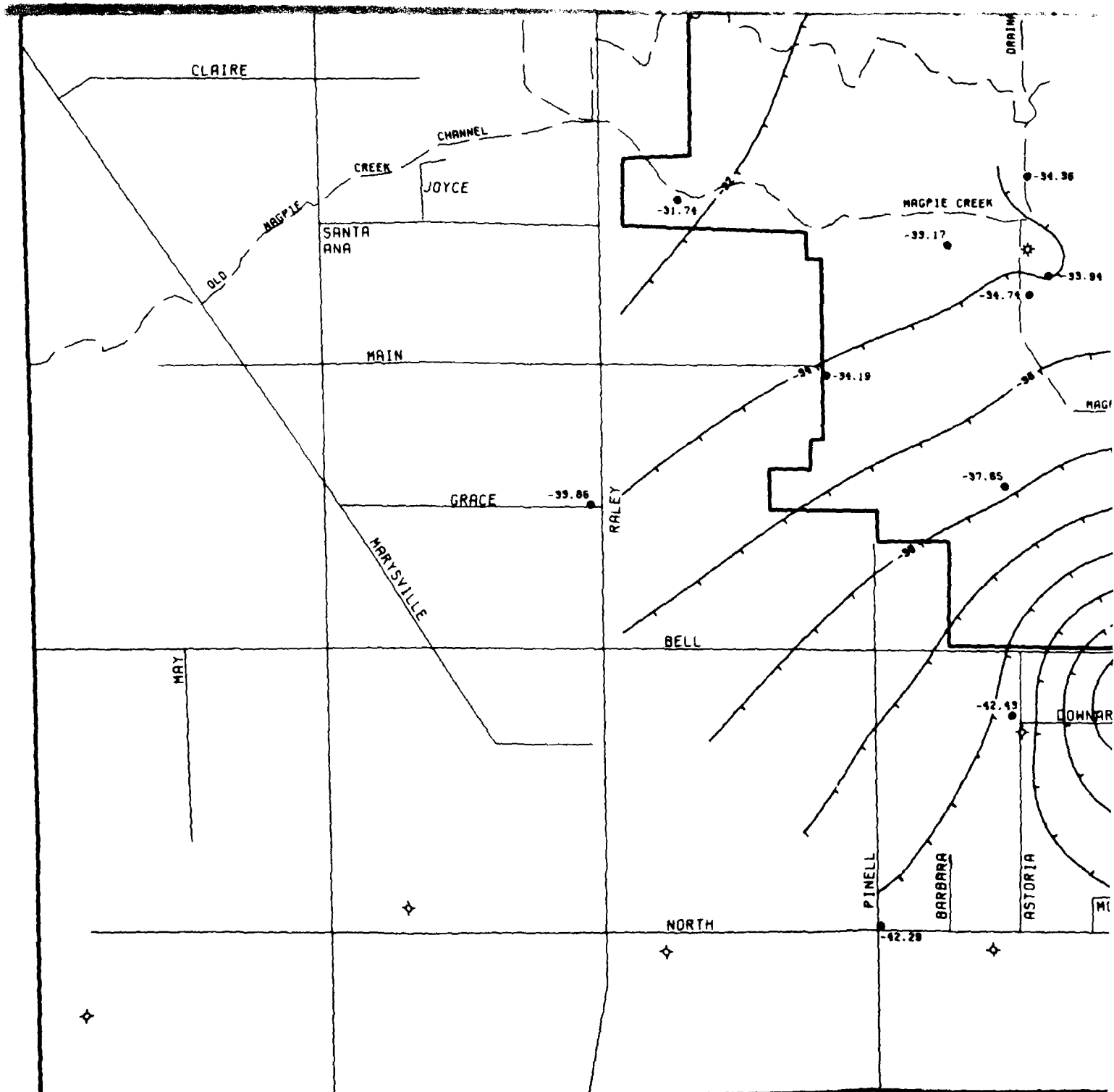
GENERATED BY <i>Lauran Haddis</i>	DATE <i>11-12-88</i>
PEER REVIEW <i>John P. Thompson</i>	DATE <i>10-12-88</i>
PROJECT REVIEW <i>Deane Stanley</i>	DATE <i>10/12/88</i>

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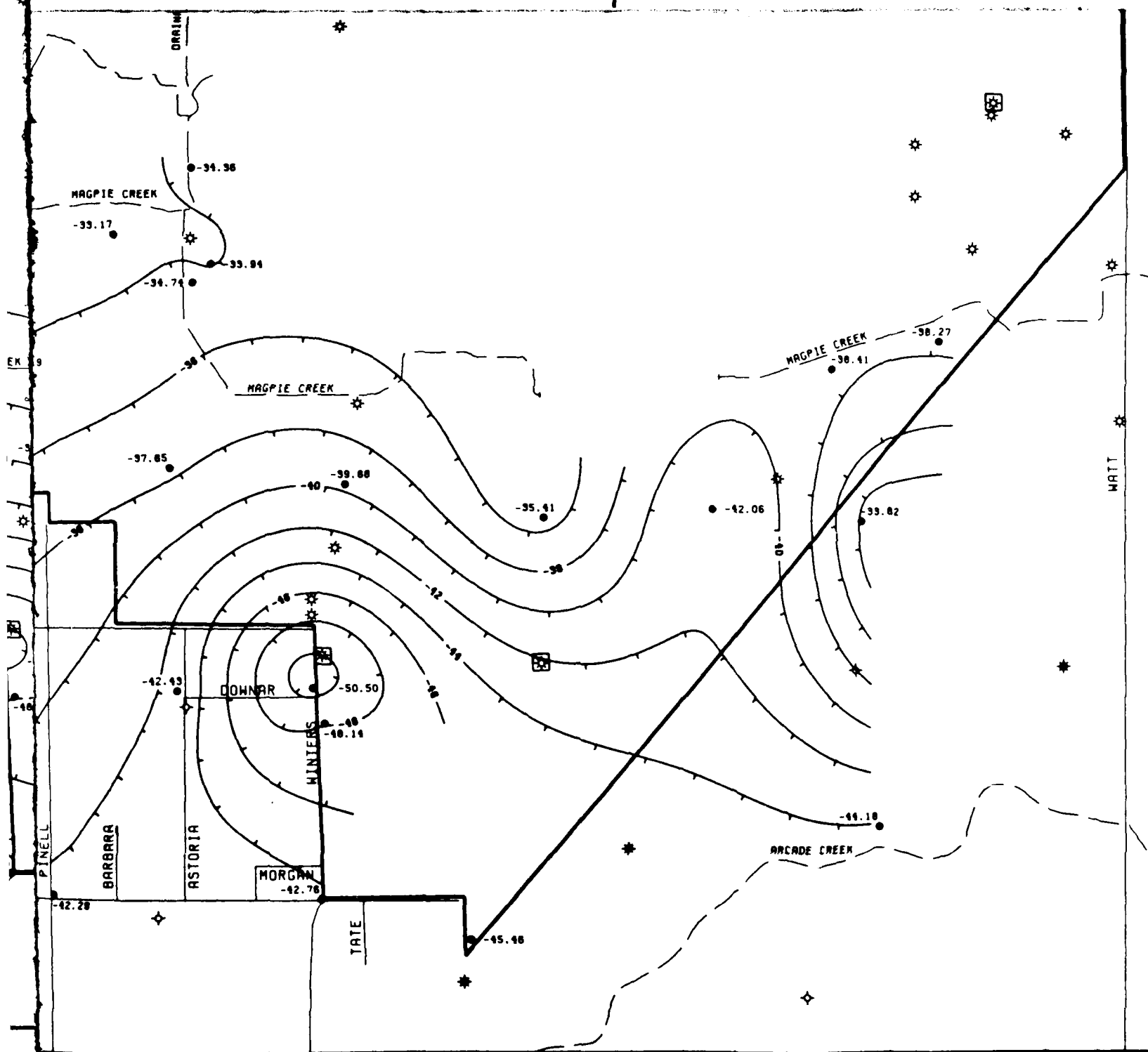


PLATE 14.
MIDDLE MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED SEPT. 1 - 2, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

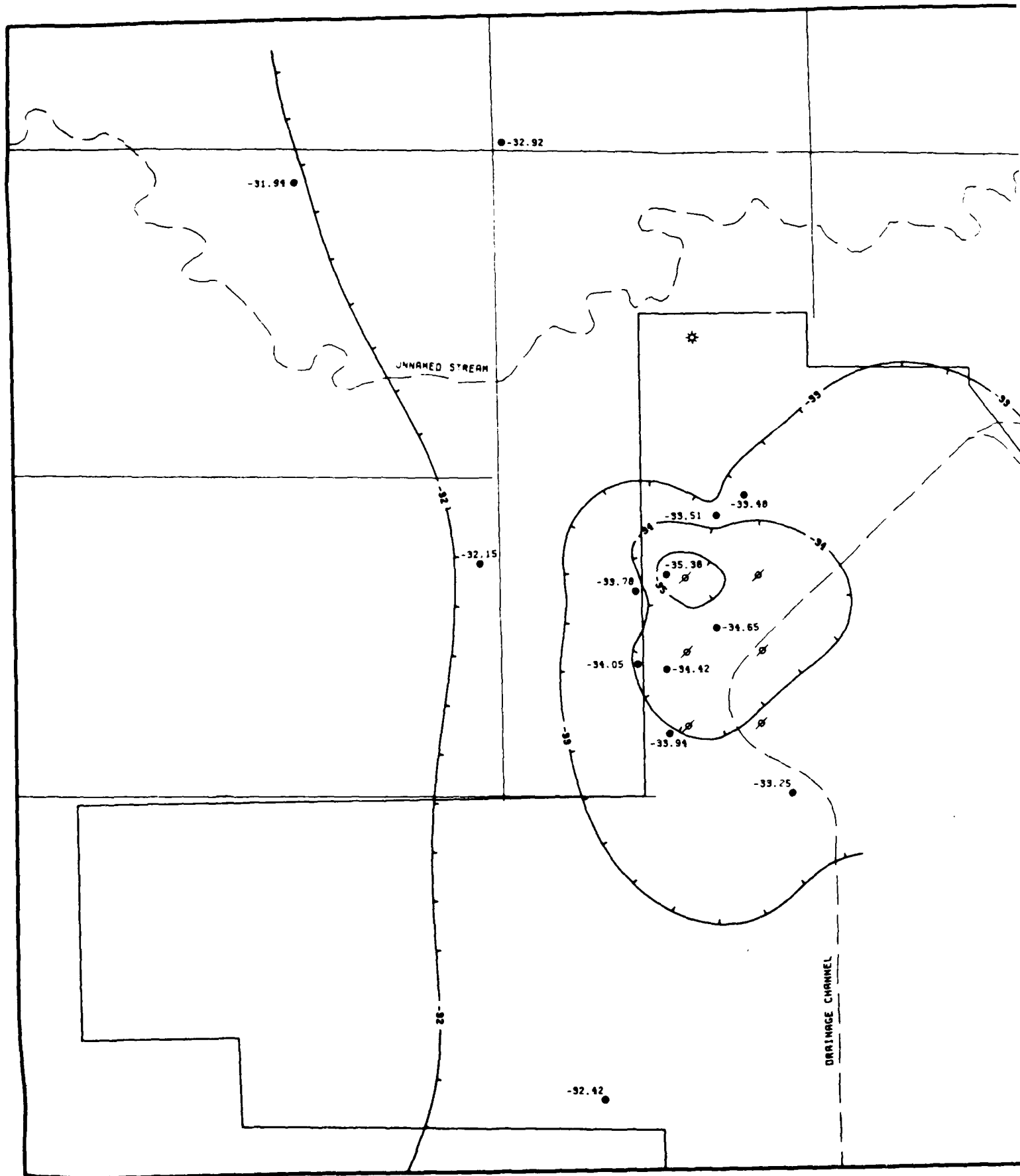
- McCLELLAN AFB BOUNDARY
- ~ STREAMS
- 30 - POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
- MIDDLE ZONE MONITORING WELL
- ⊛ INACTIVE BASE PRODUCTION WELL
- ⊠ ACTIVE BASE PRODUCTION WELL
- ⊙ CITY WELL
- ⊛ CALTRANS WELL
- ⊙ EXTRACTION WELL



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GENERATED BY <i>William H. Haddy</i>	DATE <i>11-12-88</i>
PEER REVIEW <i>John P. Thompson</i>	DATE <i>12-12-88</i>
PROJECT REVIEW <i>Deano Stenberg</i>	DATE <i>10/12/88</i>

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PLATE 15.
 AREA D - MIDDLE MONITORING ZONE
 POTENTIOMETRIC SURFACE MAP
 FOR DATA COLLECTED SEPT. 1 - 2, 1988

McCLELLAN AFB
 July - September 1988
 Data Summary

LEGEND

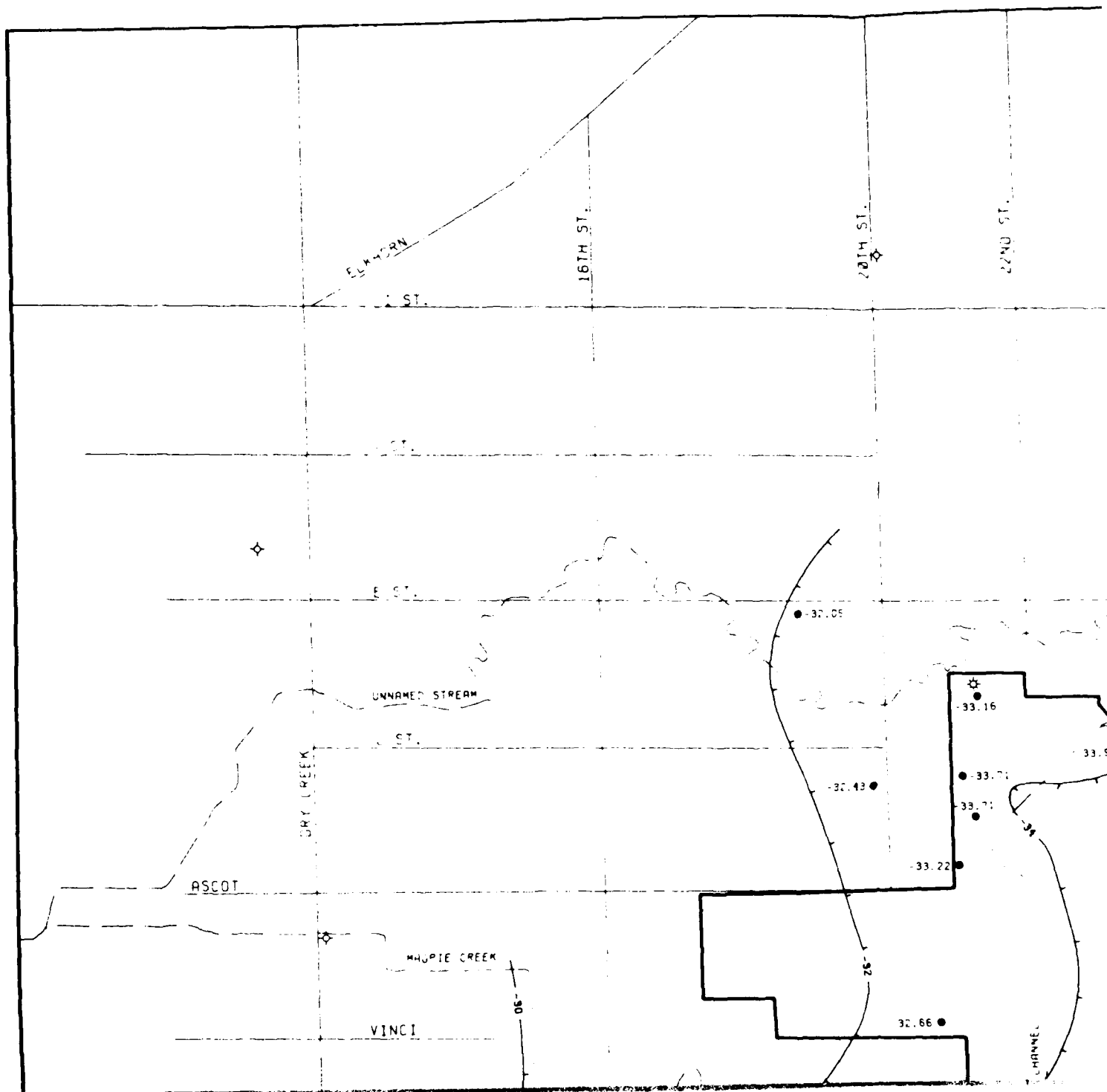
- McCLELLAN AFB BOUNDARY
- ~ STREAMS
- 30 — POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
- MIDDLE ZONE MONITORING WELL
- ⊕ INACTIVE BASE PRODUCTION WELL
- ⊗ ACTIVE BASE PRODUCTION WELL
- ⊘ EXTRACTION WELL

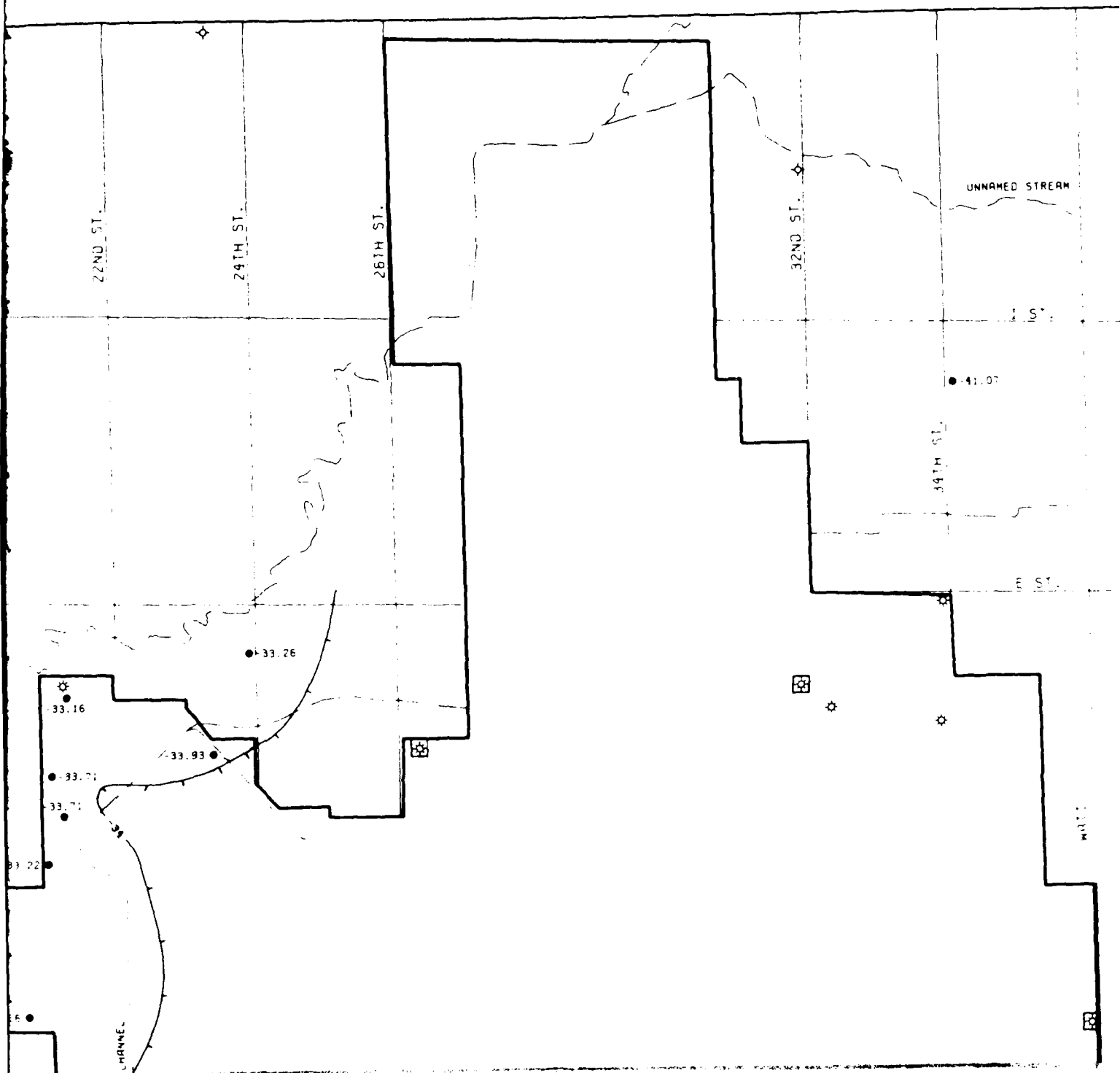


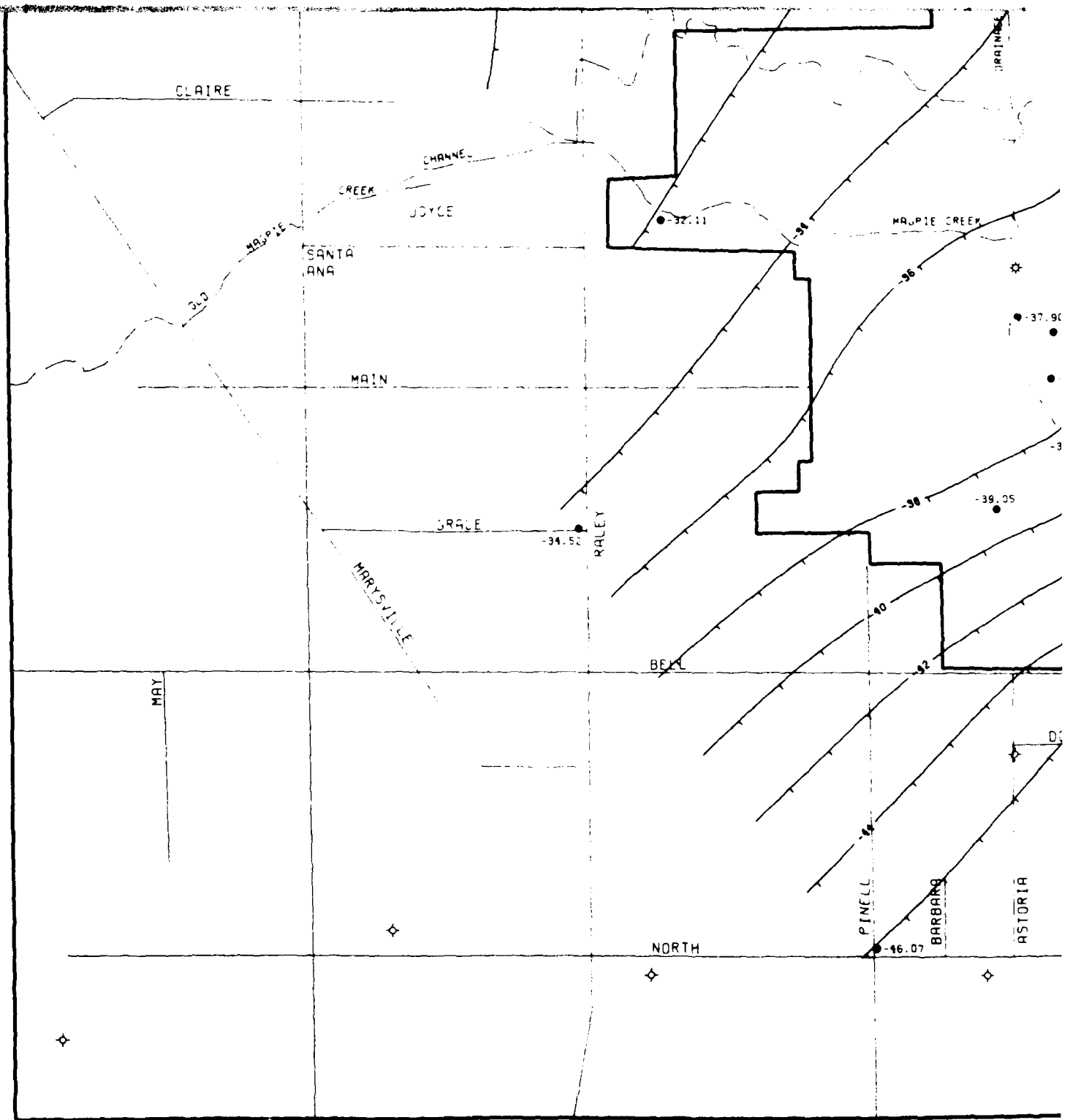
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 SCALE IN FEET

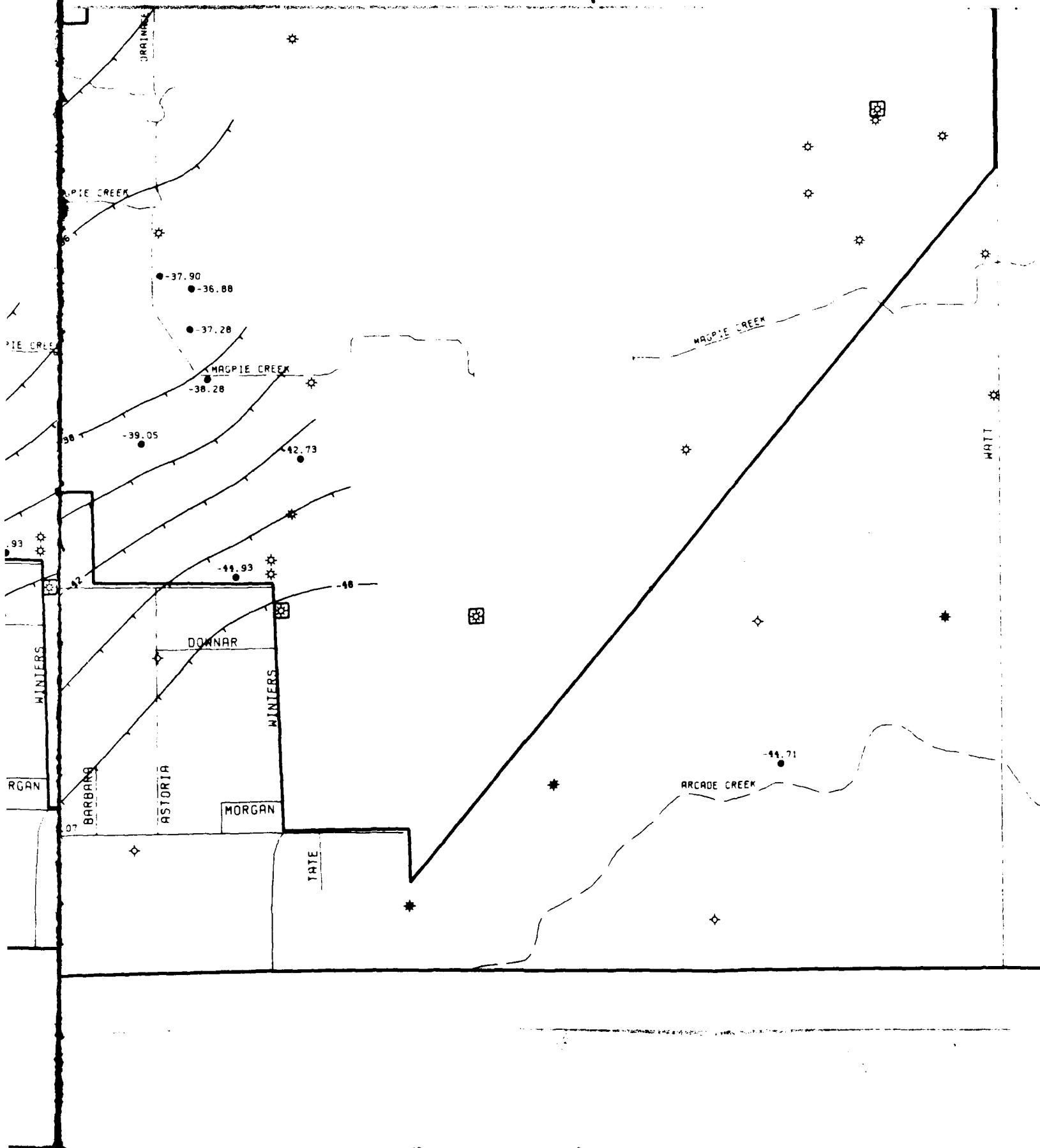
GENERATED BY	W. J. K. 4/2/88	DATE	10-12-88
PEER REVIEW	W. J. K. 4/2/88	DATE	10/12/88
PROJECT REVIEW	Deena Stanley	DATE	10/12/88

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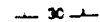






PEER REVIEW

PROJECT REVIEW

PLATE 16.
DEEP MONITORING ZONE
POTENTIOMETRIC SURFACE MAP
FOR DATA COLLECTED SEPT. 1 - 2, 1988

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

-  McCLELLAN AFB BOUNDARY
-  STREAMS
-  POTENTIOMETRIC CONTOUR LINE
AND ELEVATION (FT. MSL)
-  DEEP ZONE MONITORING WELL
-  INACTIVE BASE PRODUCTION WELL
-  ACTIVE BASE PRODUCTION WELL
-  CITY WELL
-  CALTRANS WELL
-  EXTRACTION WELL



0 500 1000

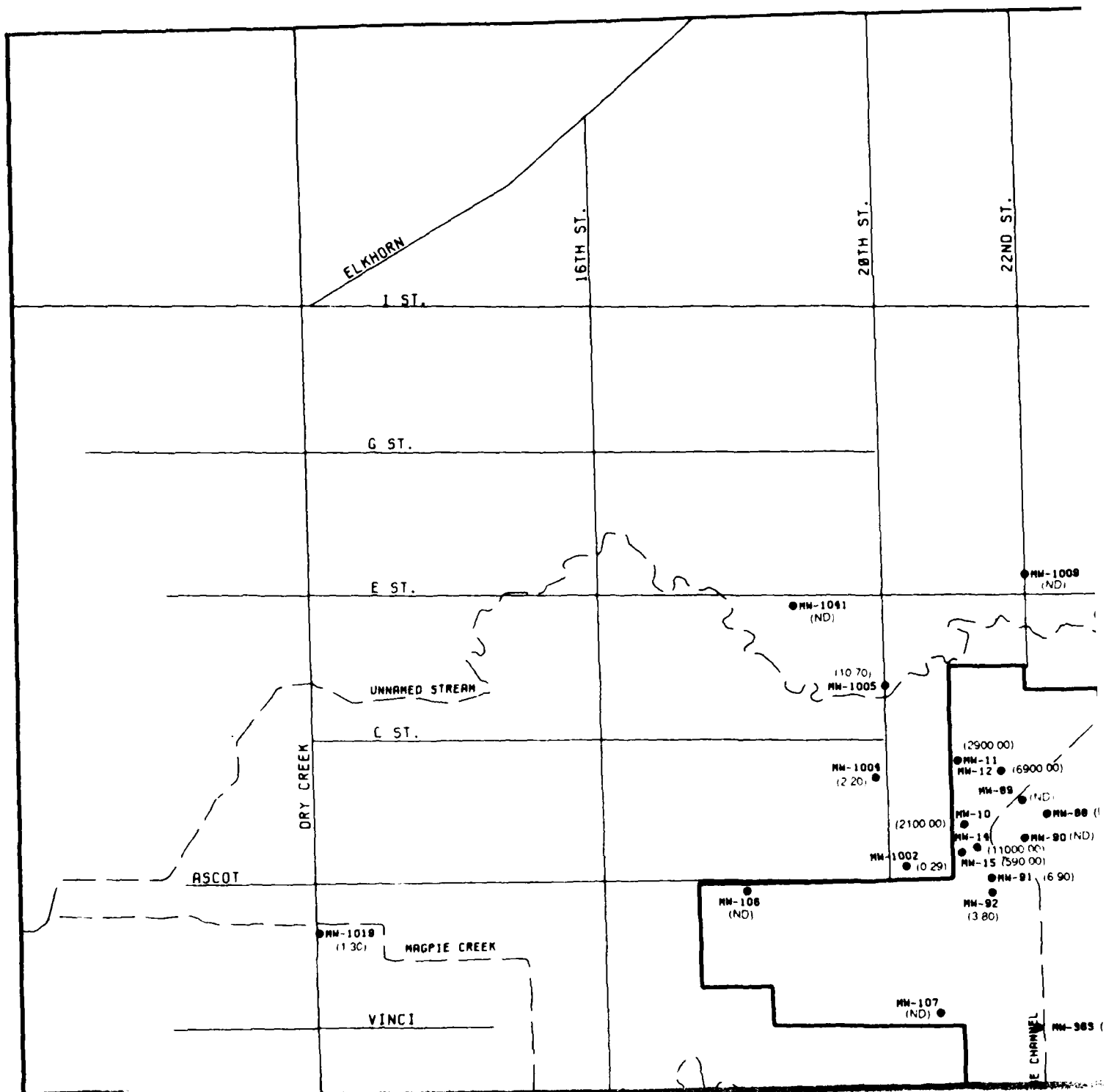
SCALE IN FEET

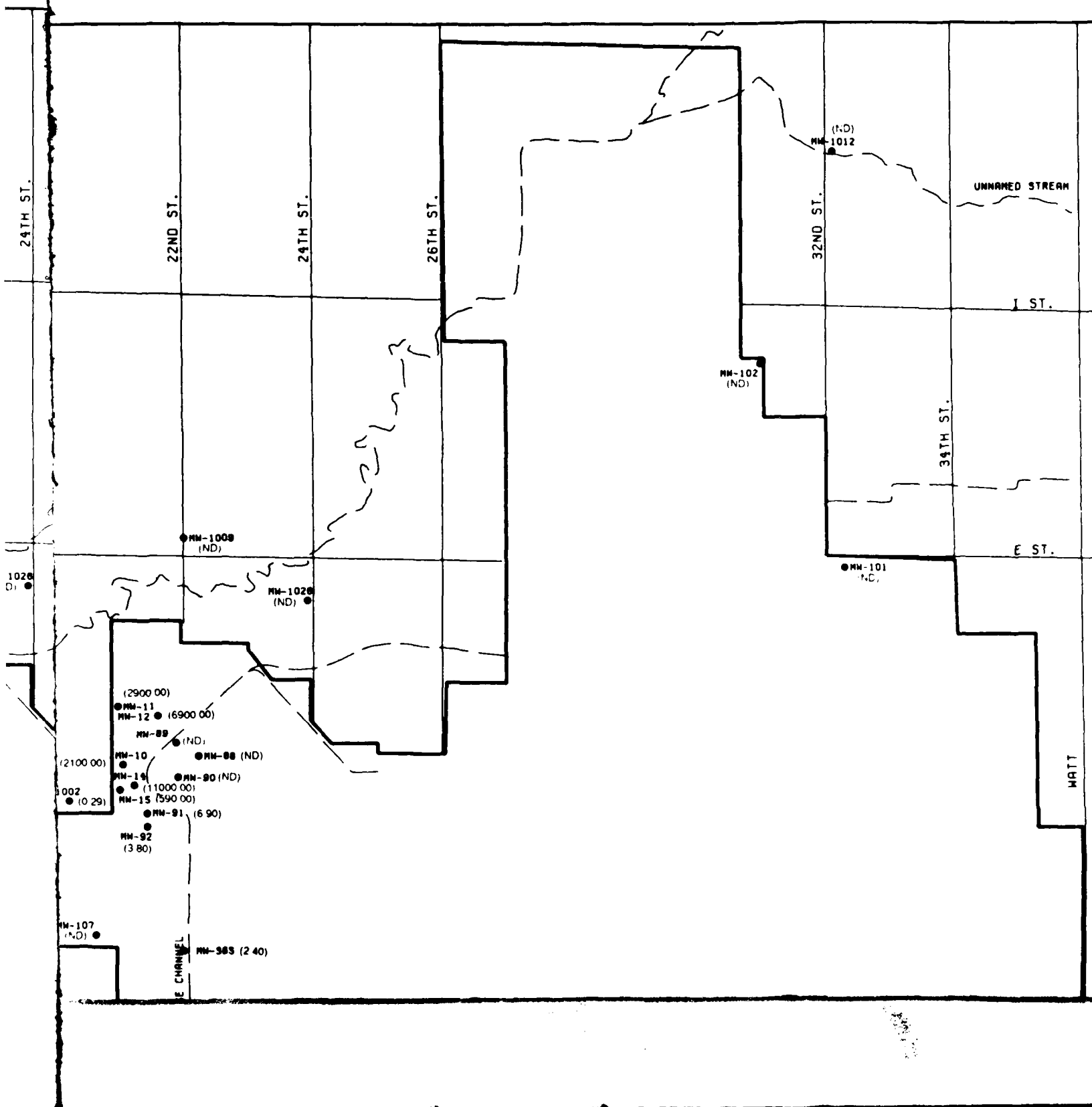
GENERATED BY *11-12-88* DATE *11-12-88*

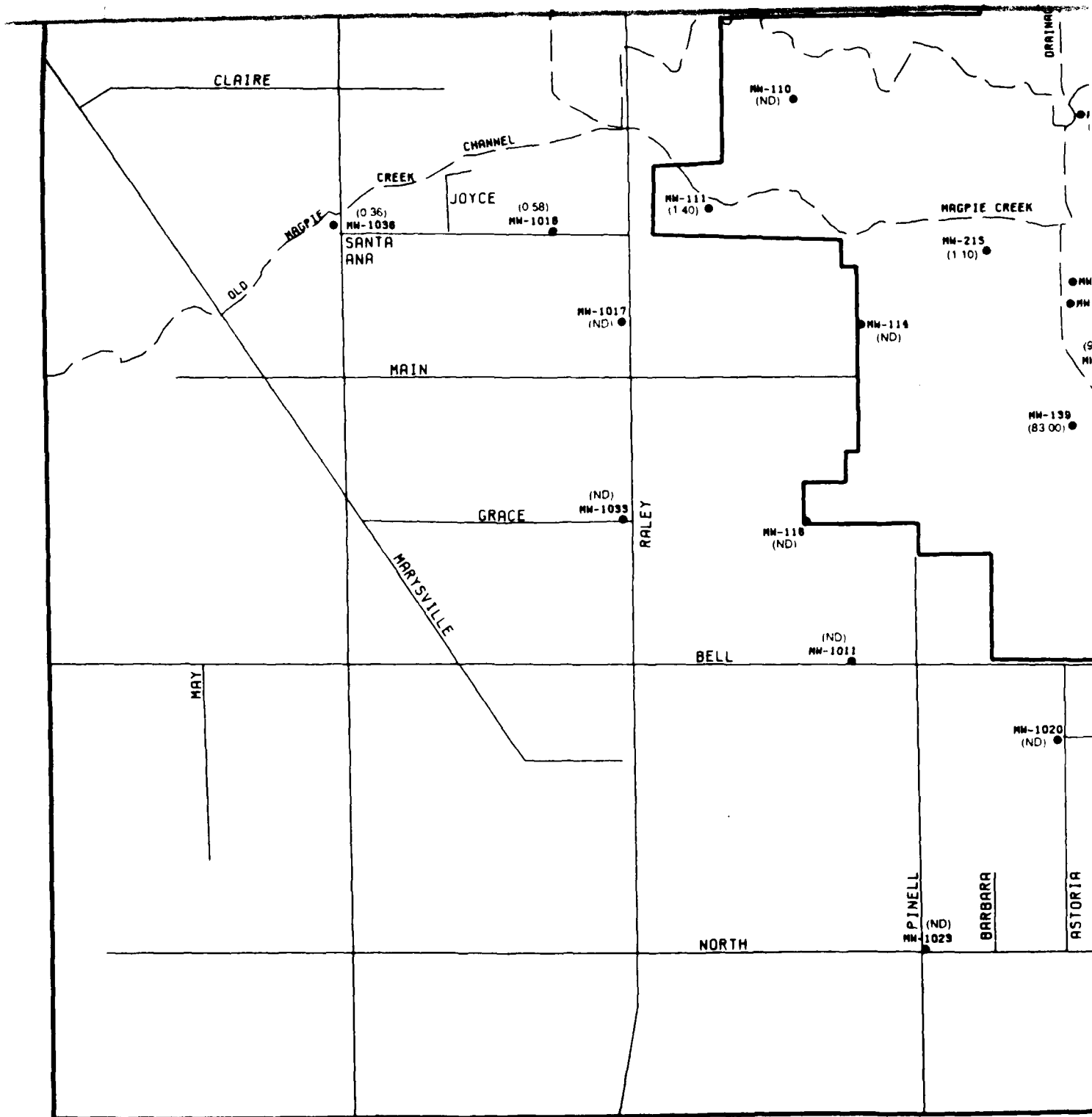
PEER REVIEW *John P. Thompson* DATE *10-12-88*

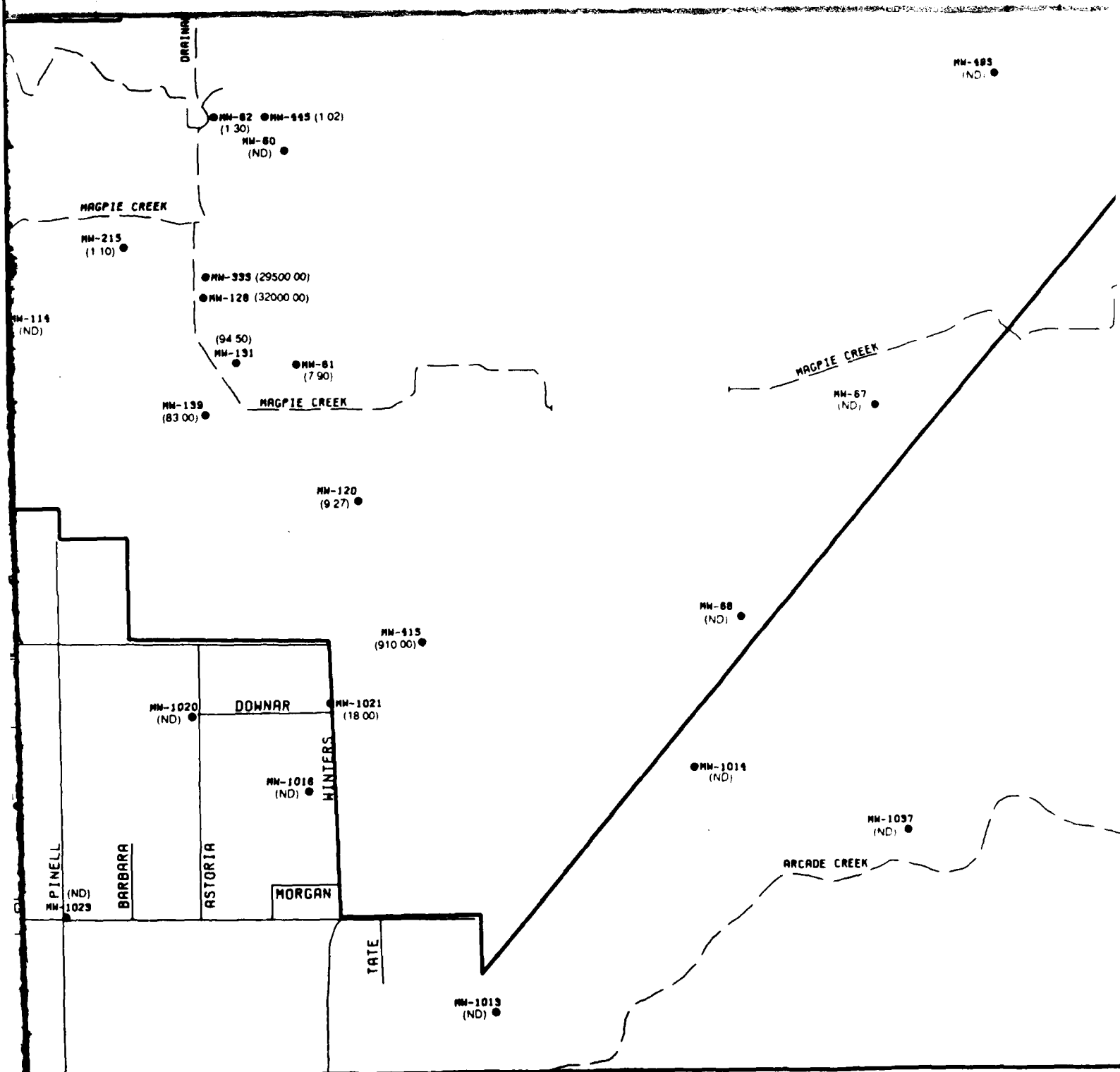
PROJECT REVIEW *Deana Stenberg* DATE *10/12/88*

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PLATE 17.
TCE CONCENTRATIONS IN THE
SHALLOW MONITORING ZONE

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND:

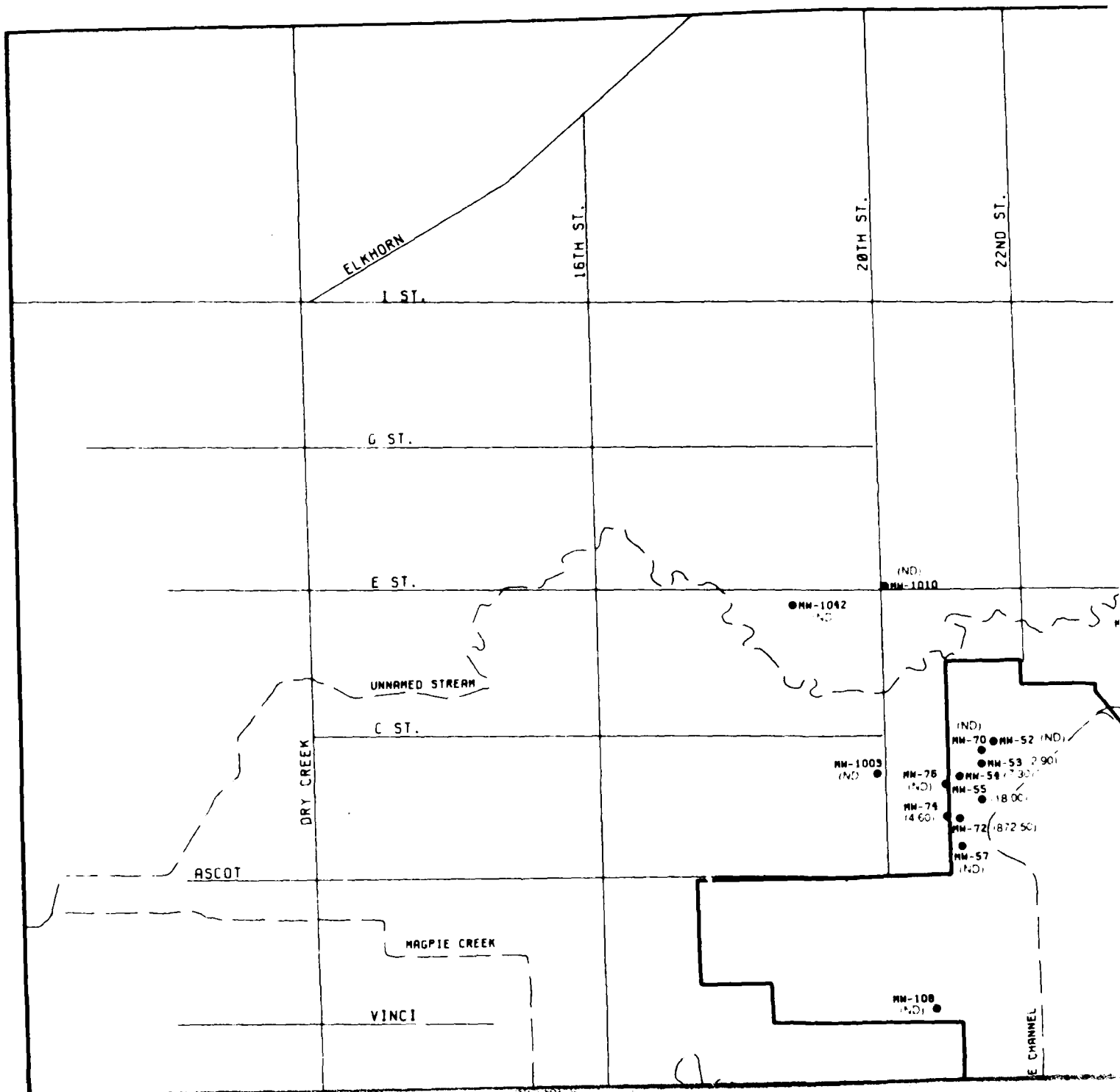
- McCLELLAN AFB BOUNDARY
- ~~~~ STREAMS
- MONITORING WELL
- (1000 00) TCE CONCENTRATION (ug/L)
- NO TCE NOT DETECTED

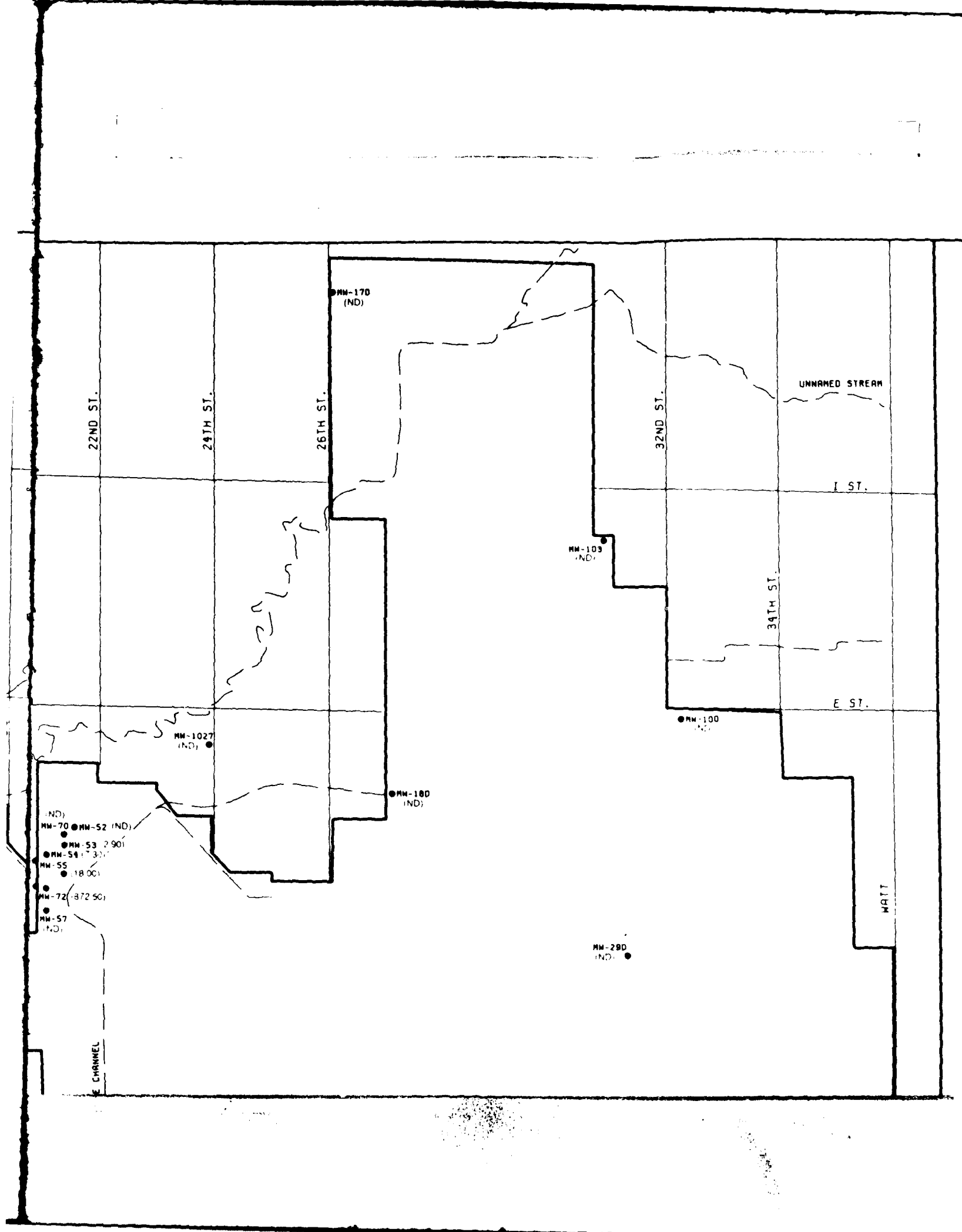


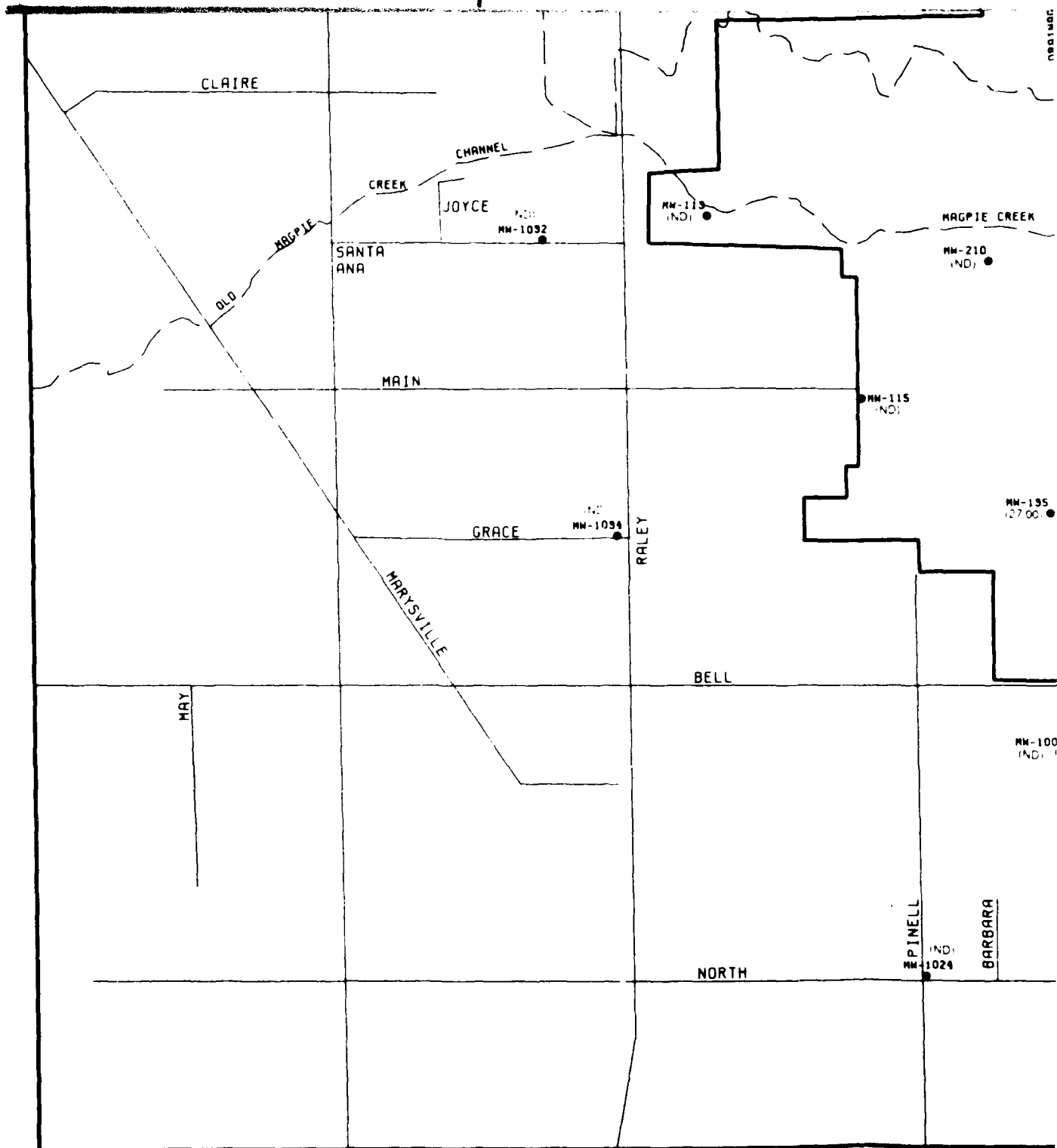
0 500 1000
SCALE IN FEET

GENERATED BY <i>William W. Middle</i>	DATE <i>10-12-88</i>
PEER REVIEW <i>John P. Thompson</i>	DATE <i>12-12-88</i>
PROJECT REVIEW <i>Deanna Stanley</i>	DATE <i>10/12/88</i>

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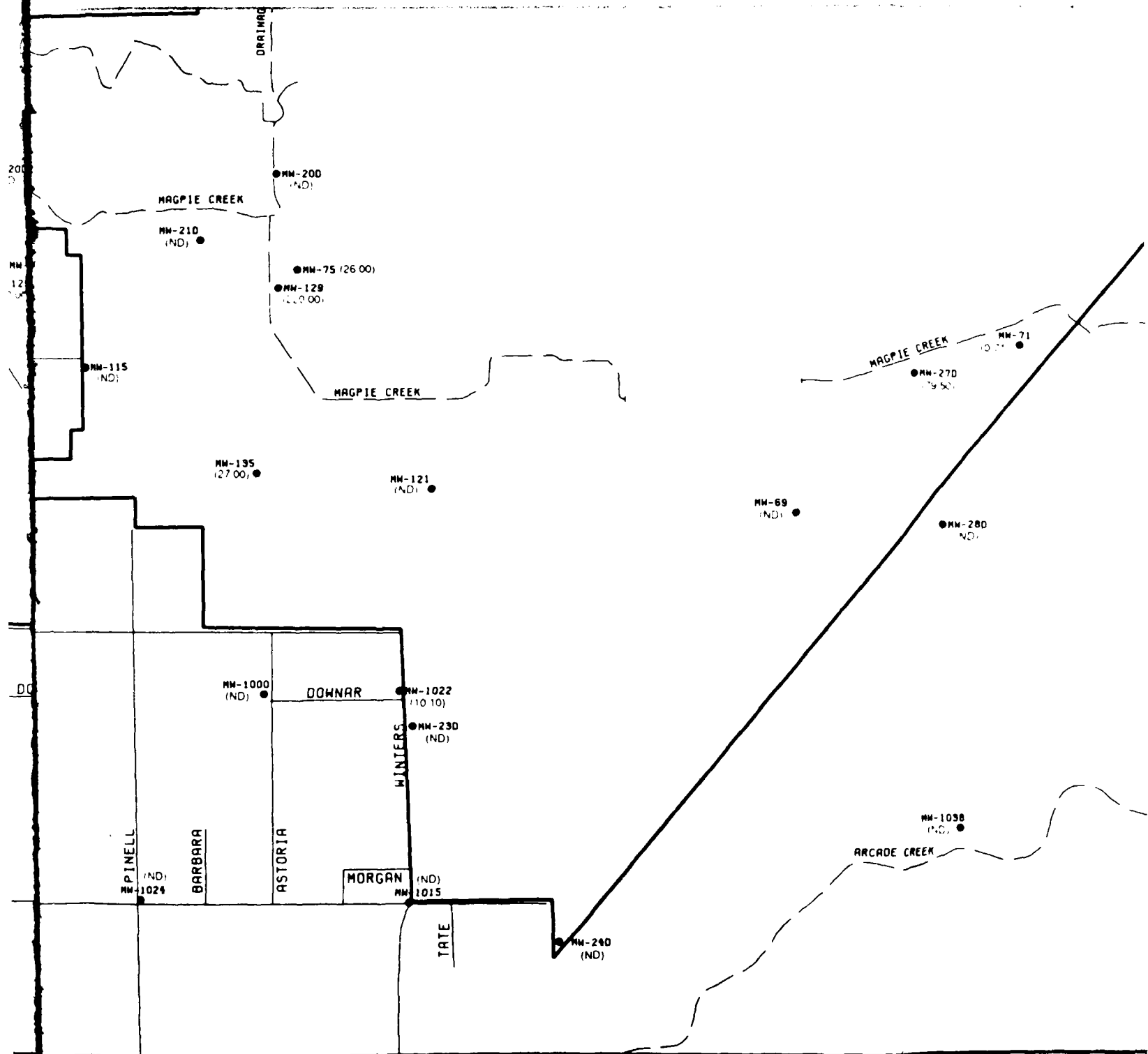


PLATE 18.
TCE CONCENTRATIONS IN THE
MIDDLE MONITORING ZONE

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

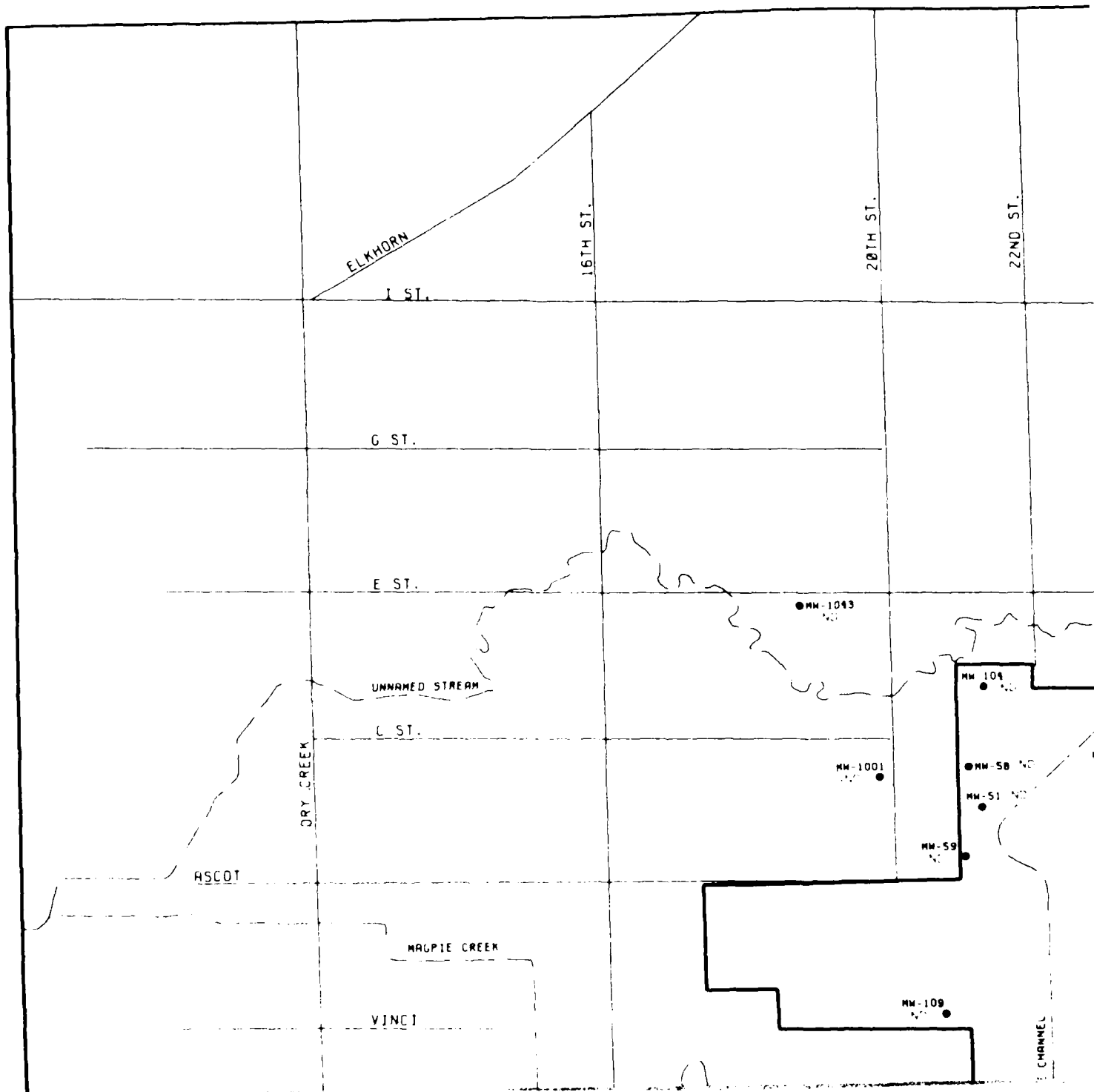
- McCLELLAN AFB BOUNDARY
- ~~~~ STREAMS
- MONITORING WELL
- (1000.00) TCE CONCENTRATION (ug/L)
- ND TCE NOT DETECTED

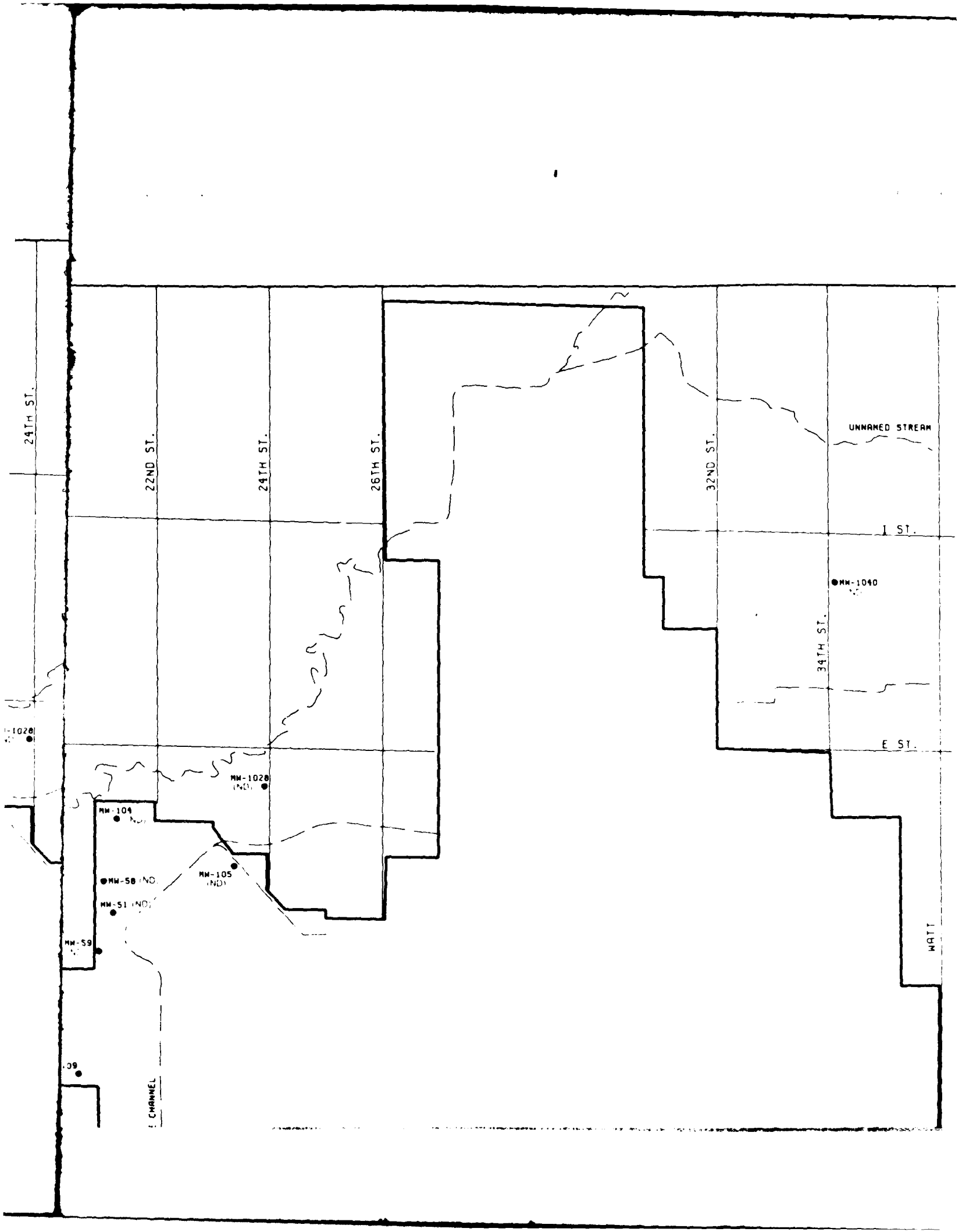


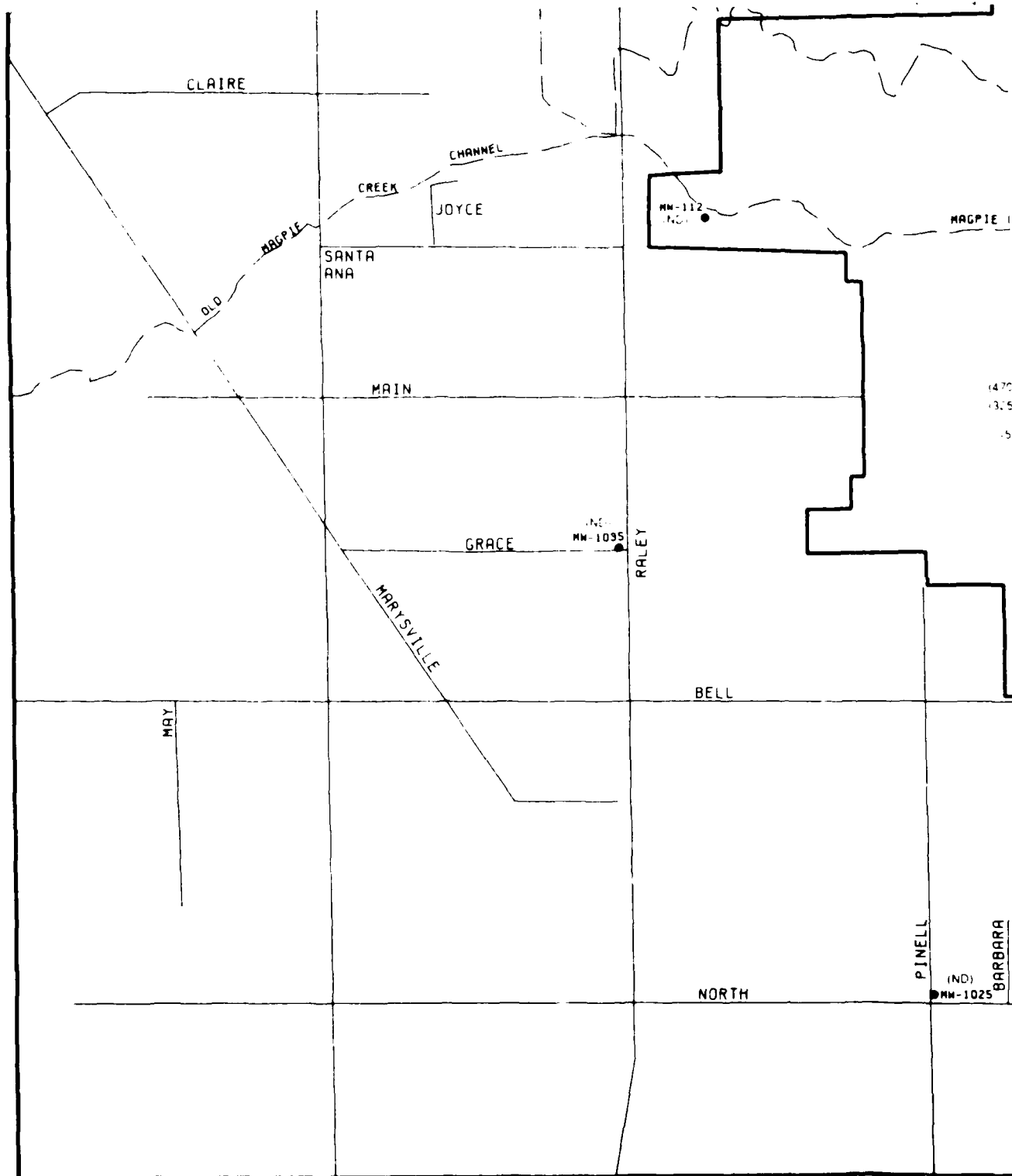
0 500 1000
SCALE IN FEET

GENERATED BY <i>W. G. Haddad</i>	DATE <i>10-12-88</i>
PEER REVIEW <i>John P. Thompson</i>	DATE <i>10-12-88</i>
PROJECT REVIEW <i>Deana Stanley</i>	DATE <i>10/12/88</i>

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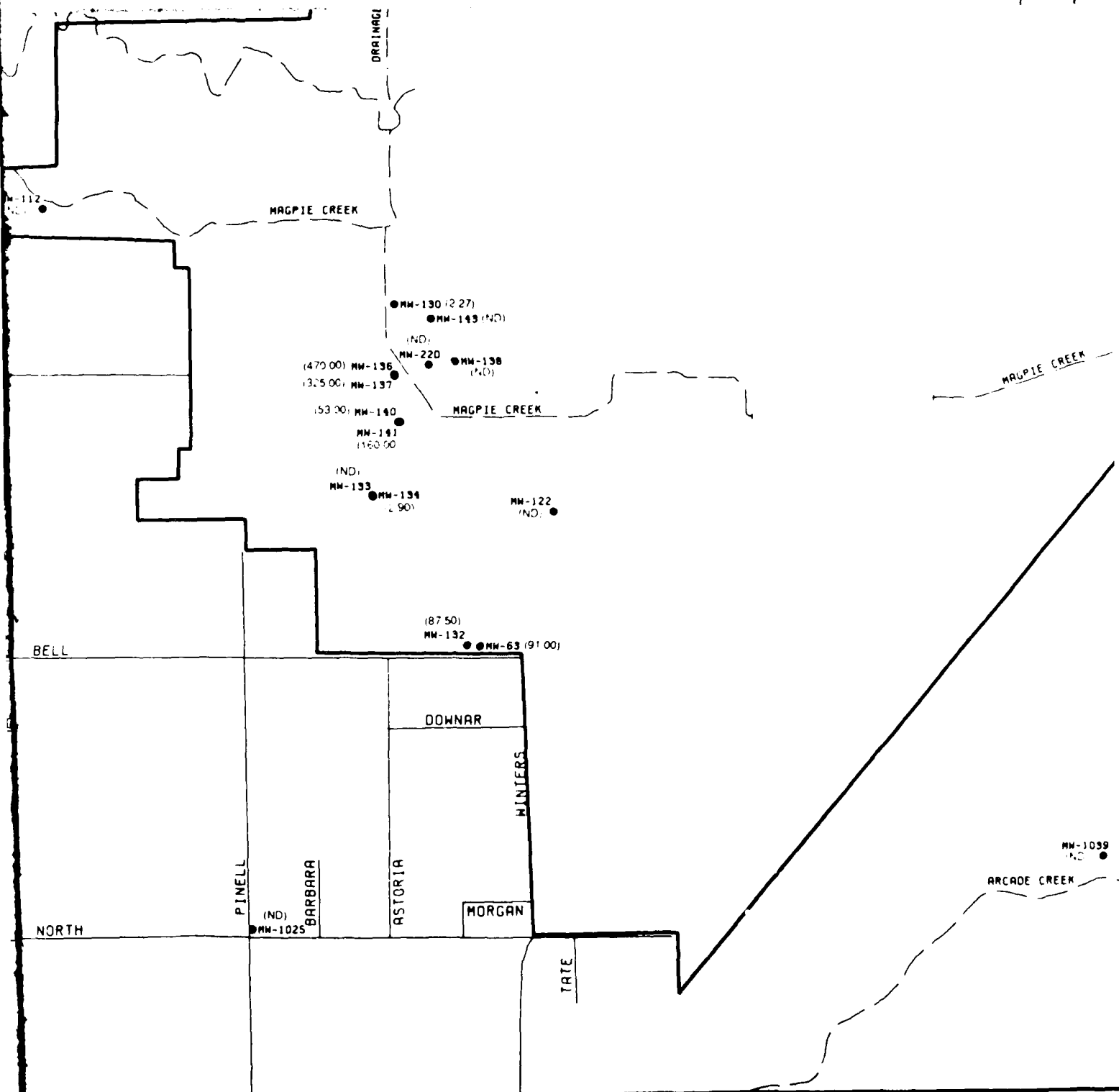


PLATE 19.
TCE CONCENTRATIONS IN THE
DEEP MONITORING ZONE

McCLELLAN AFB
July - September 1988
Data Summary

LEGEND

- McCLELLAN AFB BOUNDARY
- - - - - STREAMS
- MONITORING WELL
- (1000.00) TCE CONCENTRATION (ug/L)
- ND TCE NOT DETECTED



0 500 1000
SCALE IN FEET

GENERATED BY: <i>Walter Gaddis</i>	DATE: <i>11-12-88</i>
PEER REVIEW	DATE
PROJECT REVIEW <i>Deane Stanley</i>	DATE: <i>10/12/88</i>

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